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NATURAL HISTORY

LINCOLNSHIRE

NATURALISTS' UNION

Transactions, 1947-50

VOLUME TWELVE

Edited by F. T. BAKER, A.L.A., F.S.A.
and A. ROEBUCK, N.D.A., F.R.E.S.

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NATURALISTS UNION

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TRANSACTIONS

Edited by

F. T. BAKER, M.A., F.S.A., A.L.A. & A. ROEBUCK, O.B.E., N.D.A., F.R.E.S.

Vol. XIII. No. 4 **JULY, 1955**

LINCOLN
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Lincolnshire Naturalists' Trust Ltd.

FORMED 1949

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Membership of the Trust is open to everyone on payment of :—

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Founded June 12th, 1893

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STATEMENT OF ACCOUNT

from January 1st to December 31st, 1954

INCOME AND EXPENDITURE ACCOUNT

Receipts	£	s	d	Payments	£	s	d
To Balance at 1st January, 1954	147	10	4½	By Postages and small payments	35	18	8½
,, Members' Subscriptions ...	106	16	0	,, Notices of meetings, stationery	33	16	5
,, Bus Fares	43	6	0	,, Hire of buses	40	0	6
,, Publication Fund	21	8	6	,, Subscriptions to B.S.B.I., B.T.O., B.H.S. and B.B.	3	11	0
,, Sale of *Transactions* ...	6	7	2	,, B.T.O. Reports	1	0	0
,, Sale of B.T.O. Reports ...	1	0	0	,, Lecturers' expenses ...	2	15	0
,, Sale of *Geology of Lincolnshire*	9	15	0	,, Cheque Book	0	5	0
,, Bank Interest	1	6	9	,, Bird Brochure	8	14	0
				,, Cash in hand, 31st Dec., 1954	1	0	0
				,, Balance at Bank, 31st Dec., 1954	210	9	2
	£337	9	9½		£337	9	9½

LIFE MEMBERS' SUBSCRIPTIONS AND BEQUEST

Receipts	£	s	d	Payments	£	s	d
To Amount shown on Balance Sheet, 1953	197	5	3	By Value of Savings Certificates at 31st December, 1954	201	19	0
,, Interest on Savings Certificates	4	13	9				
	£201	19	0		£201	19	0

Audited and found correct, 17th March, 1955.

ROBERT WITHERS,
Hon. Auditor.

SOME FURTHER RECORDS AND OBSERVATIONS ON THE MACROFAUNA OF THE INTERTIDAL ZONE AT GIBRALTAR POINT.

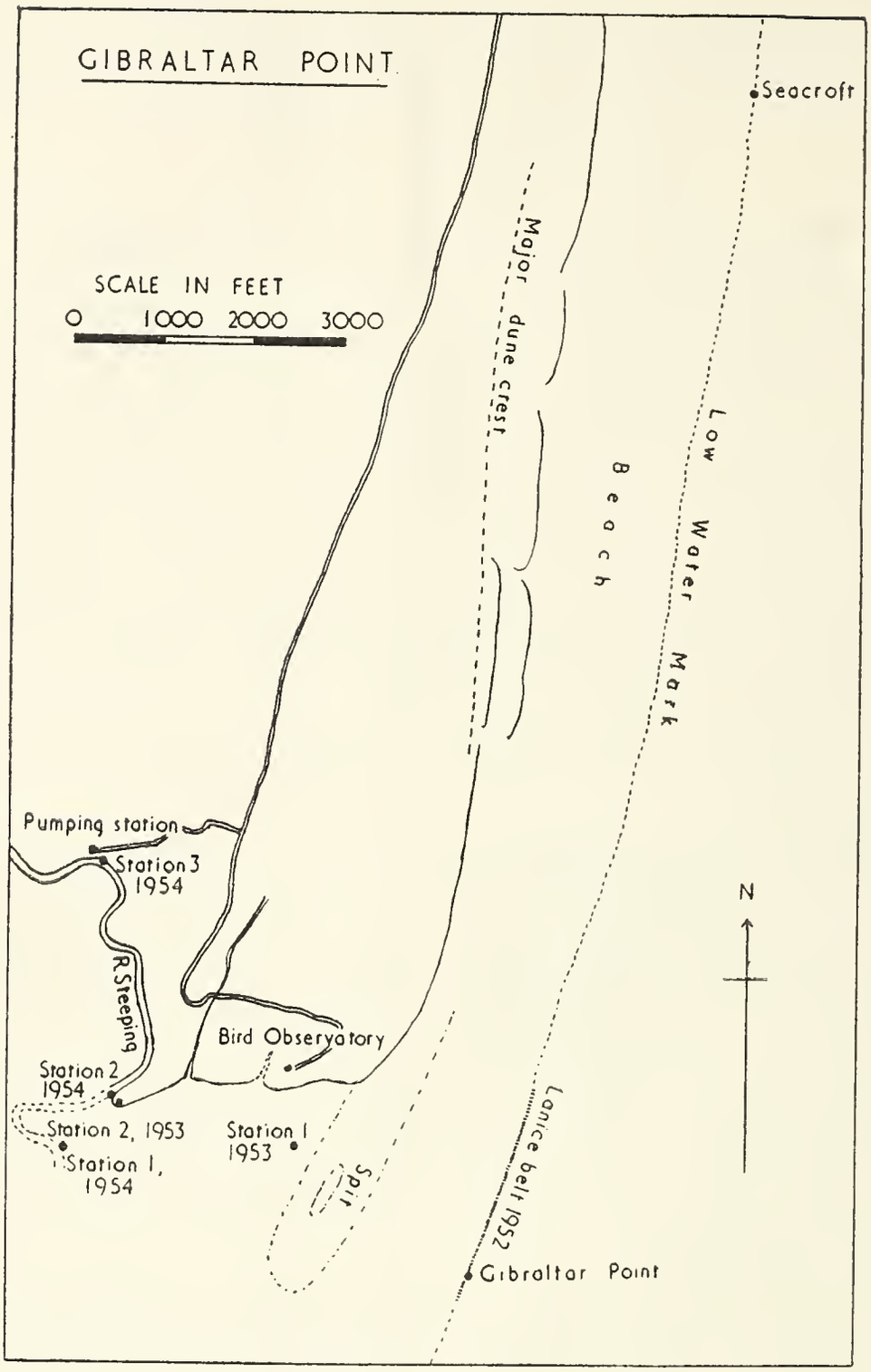
MAY R. YOUNG, B.SC., PH.D.
Department of Zoology, University of Nottingham.

During each of the past three years, 1952-54, a number of visits* have been made to study the fauna of the intertidal zone and estuary of the River Steeping, and various aspects have proved of particular interest. It is realised that the findings to be presented here are as yet preliminary, but owing to certain changes which have taken place in the intertidal zone during these three years it is felt that the specimens collected together with some data as to numbers and distribution should be placed on record. Most of the situations where both general and quantitative collections have been made are shown on the accompanying map, a tracing of an R.A.F. aerial photograph taken in September, 1946. The low water mark (L.W.M.) at the times of our collections in June or July were at approximately —6.5 Ordnance Datum (Liverpool).

The most striking change in the inter-tidal zone since the serious " storm surge of January, 1953," is that over most of the area, excepting that at L.W.M., coarse sand was deposited. This means that the banks, chiefly parallel with the coast line, contain a higher sand content (and less mud) and the intervening hollows which previously consisted of a soft mud into which one sank up to a foot or more, now consist of muddy sand and can usually be traversed with ease. The spit since the storm in January, 1953, is no longer as high and the area southwest of it is markedly more sandy, graduating quickly however, to a surface layer of fine mud over a considerable area west of the brushwood breakwater.

The converse to the above general trend has occurred at and near L.W.M. both due east of the Bird Observatory and at Seacroft, Skegness. At L.W.M. due east of the Bird Observatory during 1952, the substratum consisted of coarse sand, shingle and gravel and in it was a narrow belt of numerous *Lanice conchilega* and *Spiophanes bombyx* sand tubes and also some other burrowing animals. Since the storm in January, 1953, this region has become covered with fine mud, with the result that sand tubes of *Lanice* and *Spiophanes* are now fewer and scattered.

*The persons who shared the work with me at Gibraltar Point were in residence there for a week at a time, excepting for the single day visit:
4—11th July, 1952. Six University Zoology students: Misses Craven, Fairbrother and P. Smith and Messrs. Colloby, Lineker and Stringfellow.
6—12th August, 1952. Mr. and Mrs. A. E. Smith.
9—16th July, 1953. Miss Davison, Messrs. Hunter, Newell and Stringfellow.
24th Sept., 1953. Misses Fairbrother and P. Smith and Messrs. Hunter and Stringfellow.
18-24th June, 1954. Miss Bull, Messrs. Hunter and Newell.



The numbers are the result of random collecting excepting those in brackets under July, 1953. These latter are the numbers found by hand collecting in three areas each a half metre square.

It will be seen that all the animals are burrowing excepting the three arthropods and possibly the anemone. The latter was found in the surface layer of gravel and mud. Unfortunately it was not identified alive, so that accurate identification using the colour pattern of the disc and tentacles is no longer possible.

In this list there appear to be three commensal animals, *Mysella bidentata*, *Harmathoë imbricata* and *Harmothoë lunulata*, all three occurring in the *Lanice conchilega* zone. The bivalve, *Mysella*, was found in the burrow of *Nereis longissima* and again with *Lanice conchilega*. The specimens of *Harmothoë* spp. emerged from *Lanice* tubes.

From a comparison of the numbers of specimens collected during each of the three successive years it would appear that the increasing muddiness would be the reason for the reduction in the number of species found living in this zone at L.W.M. Similarly the muddy sand at L.W.M. at Seacroft, Skegness, is now covered by a layer of fine mud, and as the following table (Table 2) shows, the few molluscs characteristic of wet fine sand appear to have disappeared. The figures given are not quantitative, they are the result of random digging chiefly along the L.W.M.

TABLE 1. **The macrofauna at L.W.M. at Gibraltar Point.**

	July & Aug., 1952	July, 1953	Sept., 1953	June, 1954
Mollusca				
Macoma balthica	0	(0+0+2)	2	0
Mysella bidentata	3	(0+0+2)	0	0
Arthropoda				
Crustacea				
Carcinus moenas	a few	(1+1+1)	0	0
Eupagurus bernhardus	1	1	0	0
Portunus depurator	1	0	0	0
Annelida				
Polychaeta				
Arenicola marina	a few, small	a few	a few	very few
Capitella capitata	0	0	2	0
Glycera convoluta	0	1	0	0
Harmothoë imbricata	1	0	0	0
H. lunulata	1	0	3	0
Lanice conchilega	very numerous	(18+47+46)	2 var. fairly numerous, scattered	ditto
Magelona papillicornis	fairly common	8	0	3
Nephthys caeca	fairly common	a few	1	1
N. cirrosa	0	0	1	0
N. hombergi	the most common species	(3+2+0)	6	13
Nereis (Eunereis) longissima	1	0	4	0
Nerine cirratulus	a few	0	0	0
Pectinaria koreni	abundant	(2+0+2)	a few	a few
Phyllodoce maculata	0	1	0	0
Scoloplos armiger	a few	3	2	1
Spiophanes bombyx	large numbers	4	a few	scattered specimens
Syllis (?) hyalina	1	0	0	0
Nemertini				
Drepanophorus spectabilis	3	0	0	0
Cephalothrix linearis	a few	0	0	0
Coelenterata				
?Sagartia troglodytes	0	1	0	0

TABLE 2. **The macrofauna at and near L.W.M. at Seacroft, Skegness.**

	1952		1953	
	July	Aug.	July	Sept.
Mollusca				
Mactra corallina		1 very large, 9 smaller	0	0
Tellina crassa	no collecting at Seacroft proper	1	0	0
T. tenuis		9	1	0
Arthropoda				
Crustacea				
Carcinus moenas	1	0	0	0
Portunus depurator	1	0	0	0
Annelida				
Polychaeta				
Aphrodite aculeata	1	0	0	0
Goniada maculata	0	0	1	0
Magelona papillicornis	0	0	a few	0
Nerine cirratulus	a few	0	a few	0
Nephthys caeca	0	2	0	0
N. cirrosa	0	0	0	3
N. hombergi	0	4	a few	4
Nereis (Eunereis) longissima	0	0	0	1
Nemertini				
Amphiporus spectabilis	2	0	0	0
Pisces				
Ammodytes marinus	2	0	0	0

The region between Seacroft and due east of the Bird Observatory consists largely of unstable muddy sand in which *Ammodytes marinus* and *Nepthys* spp. were found.

In July, 1953, some quantitative work was commenced using Spooner and Moore's (1940) " souping " technique, and also recording the physical conditions: salinity, temperature, pH, water table, tidal level and soil analysis (Beanland, 1940). The area sampled was a half metre square and this was dug to a depth of about ten inches. If the area was not near water then this material was put in sacks and transported to the " souping " apparatus at the water's edge. The " souping " technique consisted of transferring portions of the material into a small bucket standing in a larger bath fitted on a metal stand. This bath had a spout near its base which emptied " soup " into a sieve also

fitted on to the metal stand. In the bucket the material was mixed by hand with water added by means of another bucket, and with continued addition of water and material, a suspension of supposedly soup-consistency overflowed into the outer bath, from which it flowed through the spout into the sieve. Heavy objects such as stones, pebbles, molluscs, etc., settled to the bottom of both bucket and bath and were collected from these positions. This method had several advantages over sieving alone, the chief one being that the more delicate animals are mostly undamaged as frequently happens if the material is broken in the sieve alone, and another being that the metal frame holds the bucket, bath and sieve and several people working around it can handle a larger amount of material in a given time. The specimens were picked out with either paint brush, forceps or by hand according to their size and delicacy, put in jars and taken to the Bird Observatory Laboratory for identification and counting. Where numbers were very great, such as for *Corophium volutator* on the River Steeping estuary, some sub-sampling required to be done.

The method used for soil analysis is the standard method used in agriculture. It is realised by the various workers that it is not in itself sufficiently precise to distinguish the slight difference in soil grade which seem to affect the distribution of certain species, but it does show in regard to others that soil grade is one of a number of factors influencing the distribution of burrowing animals. The soil grades listed in Table 3 were obtained by drying about 500 (dry weight) grams of the substratum out of the half metre square station being investigated, mixing this and then weighing out 100 grams. This quantity was then passed through four sieves giving the grades as follows:—

Stones and fine gravel	Retained on 2.05 mm. sieve
Very coarse sand	„ „ 0.5 mm. „
Coarse sand	„ „ 0.25 mm. „
Medium sand	„ „ 0.21 mm. „
Fine sand with silt and clay	Passed through 0.21 mm. sieve.

The significance of the values for soil grade will be of greatest importance in those habitats where there is little or no " layering " of various soil grades. Where there is this " layering " at Gibraltar Point it will be of interest to obtain sections of the substratum while still wet, separate the layers as relevant to the " layering " of the fauna as possible, and then dry the material and grade it with the use of sieves and suspension separation.

TABLE 3. **The macrofauna at Gibraltar Point using Spooner and Moore's "Souping" Technique.**

	July, 1953		June, 1954		
	Station I	Station II	Station I	Station II	Station III
Location of Stations:	225 yds. from H.W.M. near Bird Observatory	225 yds. from H.W.M., S.W. Old Coastguard House	225 yds. from H.W.M., S.W. Old Coastguard House	S.W. Old Coastguard House	near Pumping Station
Mollusca					
Macoma balthica	182	83	89	191	0
Scrobicularia plana	0	70	81	2	6
Mya arenaria	0	0	2 hand collected 2″ from Stn.	0	0
Mytilus edulis	0	1 on dead oyster shell	0	0	0
Hydrobia ulvae	4	16	0	0	0
Arthropoda					
Insecta					
Dolichopodidae	1	0	0	0	0
Crustacea (Isopoda)					
Cyathura carinata	1	1	9	0	0
(Amphipoda)					
Corophium volutator	207	408	17,950	6,203	2,350
(Decapoda)					
Crangon vulgaris	14	0	0	2	1
Cancer pagurus	0	0	0	0	1
Annelida					
Polychaeta					
Arenicola marina	6	0	0	0	0
Nereis diversicolor	3	18	2	46	72
Oligochaeta					
Clitellio sp.	0	0	6	1	1
Nemertini					
Nemertopsis (Tetrastemma)					
flavida	0	4	10	1	0
Cephalotrix linearis	0	0	0	1	0
Lineus gesserensis	0	0	0	1	0
Soil analysis:	%	%	%	%	%
Stones and fine gravel	1	1	0.4 1 small piece of gravel	0	0
Very coarse sand	15	4	0.6	1	0.1
Coarse sand	34	10	12	11.5	0.5
Medium sand	25	6	3.5	3	1.4
Fine sand with silt and clay	25	79	83.5	84.5	98
Water table:	4″ below the surface	none (on a slope)	ditto	ditto	ditto
Temperature of soil:	1″ 16.5°C.	21.5°C.			
	6″ 16.0°C.	18.25°C.			
	(on two successive days)				
pH	7.6	8.0			

Two stations an equal distance of 225 yards from high water mark (H.W.M.) with markedly different substratum were chosen for comparative purposes. The first was due south from the Bird Observatory where the material contained a high proportion of sand (see Table 3) and the second was south-west from the Old Coast-guard House near the Steeping River estuary where the material contained a high proportion of silt and clay (see Table 3). The marked differences in the fauna of Station II are the absence of *Arenicola marina*, fewer *Macoma balthica*, with an almost similar number of *Scrobicularia plana* absent from Station I, many more *Nereis diversicolor* and almost double the number of *Corophium volutator*. The increase in the numbers of *Corophium* would probably be because the muddy substratum was a more favourable medium than the muddy sand for permanent burrows. These two counts of *Corophium* during 1953 are no doubt much lower than that of Station I, 1954, in almost the same place as Station II, 1953, owing to the storm surge of January, 1953, though this is a supposition as no quantitative sampling of the same area was done in 1952. *Corophium* reproduces twice a year so that this increase, due to reproduction, would be possible. During July, 1953, the quantitative results of hand collecting three areas each of half a meter square at L.W.M. are listed in Table 1. It was not considered wise to use the " souping " technique here owing to the gravel and broken shells and *Lanice* tubes breaking up small and delicate animals. At Seacroft the animals were too scarce to merit using the " souping " apparatus.

The three Stations where this apparatus was used in June, 1954 are tabulated with Stations I & II of July, 1953, and they were situated along the River Steeping estuary. The first was at almost the same place as Station II, 1953, 225 yards out from the octagonal brick building S.W. of the Old Coast-guard House and near an iron post. Station II was near the octagonal building about two yards above the river level, and Station III was near the Pumping Station a considerable distance up the river and reached by road.

The most notable differences in the fauna of these three stations is in the disappearance of *Macoma balthica* at Station III, the reduction in numbers of *Scrobicularia plana*, earlier than *Macoma*, although other workers state that *Scrobicularia plana* are present in softer mud than *Macoma* and higher up. It will be seen from the table (Table 3) that each of these Stations have a very high mud content, that of Station III being the highest, *i.e.*, 98%. The numbers of *Corophium volutator* are very high at Station I (17,950 per $\frac{1}{2}$ meter square) and lessen at Stations II (6,203 per $\frac{1}{2}$ meter square) and III (2,350 per $\frac{1}{2}$ meter square), the reverse being the case for *Nereis diversicolor*, Station I (2 per $\frac{1}{2}$ meter square), Station II (46) and at Station III (72). These differences are probably due to mud content of the material and salinity differences but more work requires to be done to determine the reasons with greater surety. Some salinity measurements were made, but the figures are not being given because more samples at specific heights above the river level and at specific times after the sea has receded need to be made.

Random collecting in the area around both Station I and II showed *Nemertopsis* (*Tetrastemma*) *flavida* to be widely distributed, whereas *Lineus gesserensis* and *Cephalothrix linearis* appear to be of sporadic occurrence.

A single specimen of the insect larva belonging to the Family Dolichopodidae was collected from the material examined quantitatively at Station I in 1953. It has been recorded from a number of localities named in the Plymouth Fauna List, and at East Prawle the adults have been observed flying at low water level over seaweed covered rocks quite 100 yards from the shore.

A number of specimens of *Cyathura carinata*, a small Isopod belonging to the family Anthuridae, have been collected from the area 225 yards out from H.W.M., S.W. of the Old Coast-guard House. This is only the fifth locality in Britain from which it has been recorded, though it has a wide distribution, *i.e.* in Europe, N.E. America, S. Africa and China (one record only).

A single visit was made to Ingoldmells, north of Skegness, in July, 1953, where the upper reaches of the shore line was banked up with sandbags and a more permanent wall was under construction. In places the material at H.W.M. was very hard and it was thought that probably some cement had become mixed with the medium sized particles of sand there. No fauna was found in the upper reaches, though the splash zone fauna was not looked for. Numerous breakwaters of solid wooden piles and planks occur at right angles to the shore line and on these were the barnacles *Balanus balanoides* and *Elminius modestus*. Only three small casts of *Arenicola marina* were seen about half-way down the shore in medium grade sand and a little mud. One *Nephthys* sp. was collected at L.W.M. Just above L.W.M. an almost continuous band of peat-like material bored by numerous specimens of *Barnea candida* was exposed. This region would be the nearest source of the pieces of peat containing dead *Barnea candida* shells washed up on the shore at Gibraltar Point. Strangely, no other animals, such as annelids, appeared to find the peat a satisfactory habitat.

On the 21st June, 1954, a coarse plankton net was used by hand in the edge of the sea near L.W.M. and our preliminary identification of the specimens while alive were as follows:—

1. Spionid post-larvae—several stages of development. The young ones were colourless or pinkish, whilst the larger ones were green with black in the hind end of the body.
2. *Scoloplos* post-larva.
3. Numerous *Cypris* larvae.
4. Numerous Copepods, chiefly of one species.
5. Young *Gammarus* sp. with black eyes.
6. Young *Leander* sp.

7. Young *Crangon* sp.
8. Also some other Decapod larvae.
9. Polyzoan larva.
10. Hydrozoan larva.
11. Gastropod larvae.
12. Lamellibranch larvae.
13. ? Young *Ammodytes* sp.
14. Young flat-fish.

The species recorded during 1953 and 1954 not already listed in Young (1952) are as follows:

Lineus gesserensis.

Aphrodite aculeata (inadvertently omitted from the 1952 list).

Capitella capitata.

Goniada maculata.

Glycera convoluta.

Phyllodoce maculata.

Nephthys cirrosa.

Harmothoë lunulata var. *Andreapolis* and *Marphysae.*

Cyathura carinata.

insect larva of the family Dolichopodidae.

? Sagartia troglodytes.

Two publications which contain some records of Lincolnshire intertidal fauna are by Smith, Arthur (1919) and by Smith, A. and Hind, F. (1921).

Acknowledgments

Acknowledgment and thanks are given to members of the British Museum (Natural History) for the identification of the insect larva belonging to the family Dolichopodidae and the identification of the Isopod, *Cyathura carinata* by Dr. I. Gordon. Thanks are also given to Dr. C. A. M. King for constructing the map to show the localities of our " Stations " and other collecting, from an R.A.F. aerial photograph of the area in her possession.

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SOME NOTES ON THE MACRO-LEPIDOPTERA OF GIBRALTAR POINT

R. E. M. PILCHER, M.A., F.R.E.S.

From the point of view of the lepidopterist the impression one gets of Gibraltar Point is that it contains exactly the species one would expect to find. This is just as important as the presence of some rare and probably disappearing species, for it is quite certain that with the present rapid disappearance from various causes—building, holiday camps, disasters such as the recent floods—of suitable terrain, species restricted to sand dunes must soon become rare and some may even disappear. There is every evidence that the species mentioned below are well established and in no danger of extermination provided the present combination of sandhill, salt marsh and rough ground can be preserved. Further north in the county many of these insects occurred in profusion until a few years ago but now the sandhills have been entirely replaced by concrete defences which have so far proved a most unsatisfactory pabulum for lepidopterous larvae. In places accretion is taking place rapidly but such areas may well require re-colonisation.

The present study has been made largely from the ecological point of view. It is not intended to be a complete and comprehensive list of all the macro-lepidoptera occurring in the area. Such lists are undoubtedly most necessary but they are soulless things and give a very poor picture of the biology of the site. It is not considered of particular interest if a species occurs from time to time on the ground, but it may be of interest if an insect bred in the immediate neighbourhood habitually spends a large part of its imaginal state there. It is intended primarily to be a study of the residents.

RHOPALOCERA. †

Gibraltar Point is not really good butterfly country, but certain species occur in profusion. Probably the most interesting is the Green Hairstreak (*Callophrys rubi*). When I was taken there by my father for the first time some time before the 1914-18 war this butterfly occurred but was rather scarce. It was quite common in the twenties and has steadily increased. It can now be seen in abundance sunning itself on any green foliage where its protective colouration may help concealment.

The common Satyrs—the Wall Butterfly (*Pararge aegeria*); Meadow Brown (*Maniola jurtina*); Gatekeeper (*Maniola tithonus*); Ringlet (*Aphantopus hyperanthus*); Small Heath (*Coenonympha pamphilus*)—are all present in varying numbers.

Of the Lycaenids the Small Copper (*Lycaena phloeas*); Common Blue (*Polyommatus icarus*) and Brown Argus (*Aricia agestis*) are common

† The classification used is that of Kloet and Hincks' *Check List of British Insects*, 1945.

in favourable seasons. The Skippers—the Dingy Skipper (*Pyrgus malvae*); Grizzled Skipper (*Erynnis tages*); Small Skipper (*Thymelicus sylvestris*) and Large Skipper (*Augiades sylvanus*) all occur.

In summer the flowers of the Sea Lavender and later those of the Sea Aster are visited by the commoner Vanessids. They are joined by a few Comma butterflies (*Polygonia c-album*) a species which has become established in recent years in the neighbourhood. In the " Clouded Yellow years " the Clouded Yellow (*Colias croceus*) occurs.

Although it is not a local phenomenon, it is essentially a coastal one and mention must therefore be made of the occasional mass immigration of Pieridae, for it is likely to recur and to present to the fortunate observer an astonishing spectacle, as when in the late hours of a June afternoon in 1944 a snow storm of white butterflies crossed the sea and landed with its right flank on Gibraltar Point. For a short time every blade of grass appeared to hold its resting Small White (*Pieris rapae*).

HETEROCERA.

Sphingidae. Three Hawk-moths breed and are established in the area: the Elephant Hawk (*Deilephila elpenor*), the Small Elephant Hawk (*D. porcellus*), and the Humming-bird Hawk (*Macroglossa stellatarum*). The last named varies very much in numbers from year to year and is probably wholly dependent on early summer immigrants for its survival. The Poplar Hawk (*Laothoe populi*) from the neighbouring poplars and the Eyed Hawk (*Smerinthus ocellatus*) from the willows occur so regularly as to be regarded as more than visitors.

Limantridae. Larvae of the Vapourer (*Orgyia antiqua*) and of the Gold-Tail (*Euproctis chrysorrhoea*) are common, and the White Satin (*Leucoma salicis*) from the poplars is found regularly.

Lasiocampidae. No one who visits Gibraltar Point in the early autumn can fail to notice the enormous numbers of the Fox Moth larvae (*Macrothylacia rubi*) which feed on a variety of low foliage and climb the branches of the Sea Buckthorn to sun themselves. In the spring in some years the larvae of the Oak Eggar (*Lasiocampa quercus*) are equally common. Both these species are very commonly parasitised and indeed it is fortunate that this is so. Unless there was a very high mortality rate in such abundance the whole area must inevitably be defoliated. The number parasitised certainly varies in different years, but in 1946 out of 200 Oak Eggar larvae collected at random, only a single specimen proved to have escaped. In the Fox Moth the rate is high but probably considerably lower than in the Oak Eggar, for the Fox Moth does not appear to survive the perils of hibernation as satisfactorily as the Oak Eggar, and there is thus a natural restriction of numbers from this factor. The Lackey (*Malacosoma neustria*) is common as a larva; it is relatively rarely parasitised but in spite of its bright and warning colours it is freely eaten by birds. The only other Lasiocamp which occurs is the Drinker (*Philudoria potatoria*). This

normally very variable insect appears to be remarkably constant here.

Arctiidae. The White Ermine (*Spilosoma lubricipeda*) and the Buff Ermine (*S. lutea*) are both common. The former appears to be typical but the latter is here a most interesting insect. Although apparently rare in the wild, the form *zatima* Cram. (*radiata* Haw) of the Buff Ermine is readily obtained by inbreeding wild larvae. The history of this form is most interesting. The first specimen was obtained by Mr. Haworth early in the nineteenth century in Yorkshire; in 1837 Mr. J. C. Dale obtained several specimens from the neighbourhood of Saltfleet. A few years later Mr. Fletcher obtained several from the neighbourhood of Mablethorpe. I have found it regularly at Theddlethorpe, Ingoldmells and Gibraltar Point. It occures rarely and at long intervals inland and chiefly in Yorkshire; its regular occurrence appears to be confined to the Lincolnshire coast. On the continent it is rare in Holland but in Heligoland it is the common form. The inference would appear to be that the form has become established here from immigrant parents in biologically recent times. Linked to its varietal appearance is a variation in appetite. The larvae feed on elder (although they are polyphagous in confinement); I have only recovered the form from larvae feeding on elder. Larvae feeding in the more usual way on a variety of low-growing plants do not appear to produce *f. zatima*. *F. zatima* is a recessive; the heterozygotes vary in the heaviness of the black markings and the amount of striation on the wings in different pairings and in some the fore-wings are blotched and the hind-wings smoky. The variation in the heterozygotes is presumably due to factor interaction.

The larvae of the Ruby Tiger (*Phragmatobia fuliginosa*) are common on Ragwort over a remarkably long period. Larvae of the Tiger (*Arctia caja*) are also generally common. Larvae of the Cinnabar (*Hypocrita jacobaeae*) defoliate the Ragwort. All these larvae are very commonly parasitised. Pupae of the Cinnabar can be obtained in hundreds from the roots of the Marram Grass, and out of two hundred obtained in 1951 in this way only eight were healthy. This of course accounts for the fact that the number of this very showy moth seen on the wing is only a minute fraction of the number of larvae seen in the previous year.

The only Footman I have found has been the Common Footman (*Eilema lurideola*).

Caradrinidae. The usual Sandhill "noctuids" occur in profusion—Archer's Dart (*Agrotis vestigialis*), The Sand Dart (*A. ripae*) and The Coast Dart (*Euxoa cursoria*). All forms of the Sand Dart occur and the Coast Dart is very variable. The Heart and Club (*Agrotis clavis*) which was so common thirty years ago, is now quite rare. On the other hand the Shuttle-shaped Dart (*A. puta*) which was not seen in the 1920's, is now very common.

The Garden Dart (*Euxoa nigricans*) and the White-line Dart (*E. tritici*), both of which are common throughout the County, occur

in unusual coastal forms. The former is usually a dull dirty brown, and for so variable an insect remarkably constant. The White-line Dart appears in a very dark form easily confused with the dark form of the Sand Dart. The development of this form by natural selection may be visualised when it is compared with the bright golden form of the inland fresh-water reed beds and the purple colour of the Woodhall heather variety. Although the three forms exist within a few miles of each other, the variation due to habitat is so striking that they might well be taken for three different species.

The Portland Moth (*Actebia praecox*) must occur. I have not taken it yet but I have always been unlucky in the weather when I have looked for it. It occurs not far away inland; it is essentially a coastal insect and it would seem reasonable to assume its base must be somewhere on the coast.

All the Triphaenids, including the Least Yellow-underwing (*T. interjecta*) but with the exception of the Lunar Yellow Underwing (*T. orbona*), are common. The Pale Shining Brown (*Polia advena*) is common. The Tawny Shears (*Hadena lepida*) on Sea Campion and the Campion Coronet (*H. cucubali*) on the Bladder Campion occur; the latter very commonly. The Lychnis Coronet (*H. bicruris*) is rather rare. I have never found the Marbled Coronet (*H. conspersa*) but it should occur. The brightly coloured and very variable larvae of the Broom Moth (*Ceramica pisi*) are generally very conspicuous on the Sea Buckthorn. The Feathered Ranunculus (*Eumichtis lichenea*) is rarely seen as an imago; it is said to be a very late flyer. The larvae are common in the spring feeding at night on Hound's Tongue. The White Colon (*Heliophobus albicolon*) considered a prize by collectors, is by no means rare.

The Crescent Striped (*Hydraecia oblonga*), which appears to favour coastal marshes, is common. The Saltern Ear (*Hydraecia paludis*) with the same preferences is commoner than the usually common Common Ear (*Celaena oculea*). Two other species with a marsh, but not necessarily a salt marsh, habitat are the Brown Crescent (*Celaena leucostigma*) and the Dog's-Tooth (*Hadena suasa*). The latter is very common and very variable.

The Procus family are represented by the Marbled Minor (*P. strigilis*), the Cloaked Minor (*P. furunculus*) varying as it so commonly does enormously in size and markings; the Middle-barred Minor (*P. fasciuncula*), and the Rosy Minor (*Miana literosa*) in a very bright and lovely form. The Tawny Minor (*P. latrunculus*), only recently recognised as a distinct species and probably therefore a new addition to the County List, appears to be quite common.

In addition to the usual Wainscots both the two coastal species the Lyme Grass (*Arenostola elymi*) and the Shore Wainscot (*Leucania litoralis*) occur. At present the Marram Grass predominates over the Lyme Grass and the Shore Wainscot is the commoner at Gibraltar

Point; further north the conditions are reversed and the Lyme Grass is the commoner.

Plusiidae. The area is frequently invaded in the summer and autumn by hordes of immigrant Silver-Y moths (*Plusia gamma*). The only other member of the family calling for comment is the Gold Spot (*P. festucae*) which occurs and in favourable years is double-brooded.

Geometridae. The most interesting Geometer is probably the pretty little Rosy Wave (*Scopula emutaris*). This moth used to occur years ago in the beds of Sea Lavender near Saltfleet. This probably represented the extreme northern range of an insect mainly confined to the coastal regions of Essex, Kent and Dorset. There is one known locality in the bogs of the New Forest. Its presence at Gibraltar Point is little known. The larvae feed on Sea Lavender and, although the beds of this flower can seldom have been in a healthier condition at Gibraltar Point than they are now, this little moth is becoming much scarcer. Although it must be adapted to prolonged immersion, for it is in the larval state at the time of both the spring and autumn spring tides, the recent flooding may have disrupted its economy in some way. On the other hand it may merely be going through a period of scarcity as is known to occur in so many species.

The Dark Twin-spot Carpet (*Xanthorhoe ferrugata*), a common insect everywhere, occurs in an amazing variety of sizes, some being minute. The larvae feed on a variety of plants and its size may depend on its food plant.

Many of the " Pugs " are common. The Ash Pug (*Eupethecia fraxinata*) feeds on Sea Buckthorn in the absence of its normal food plant. The Lime-speck (*E. centaurea*), the Wormwood (*E. absinthiata*), the Satyr (*E. satyrata*) are found on Ragwort heads. I have never found the rare Angle-barred (*E. innotata*) which Barrett records as occurring at Skegness and all subsequent books copy. Nor have I yet found the larva of the Scarce Pug (*E. extensaria*) which is common enough on Sea Wormwood on the salt marshes on the other side of the Wainfleet Haven. This moth is almost certainly a recent immigrant but if it can cross the North Sea and successfully colonise the Wash, the Wainfleet river should not prove an obstacle to it.*

The Yellow Belle (*Crocota ochrearia*), a day-flying species, will be noticed by the visitor. Although the males are common, the females are rarely seen. It is double-brooded but the first brood is much the commoner.

This Paper makes no pretence to completeness. Many common species are not mentioned because they are common everywhere. No doubt also many species have been overlooked. It is hoped that its main interest lies in the picture it gives of the lepidoptera of a sand-hill

*Mr. A. E. Smith who has very kindly read through this paper for me, tells me that he and his wife did in fact find the larvae of *E. extensaria* in 1952 on Sea Wormwood at Gibraltar Point.

and salt-marsh locality, which is remarkably complete. For only those species which have a very local and often precarious hold on certain areas on the South Coast and which are unable to withstand the more rigorous conditions of the East Coast, are missing. The development of colour forms, often similar in different species, in adaptation to their environment; the high incidence of parasitism; evidence of immigration of species in biologically recent times: these appear to me to be points which arise from the present study and deserve further discussion and investigation.

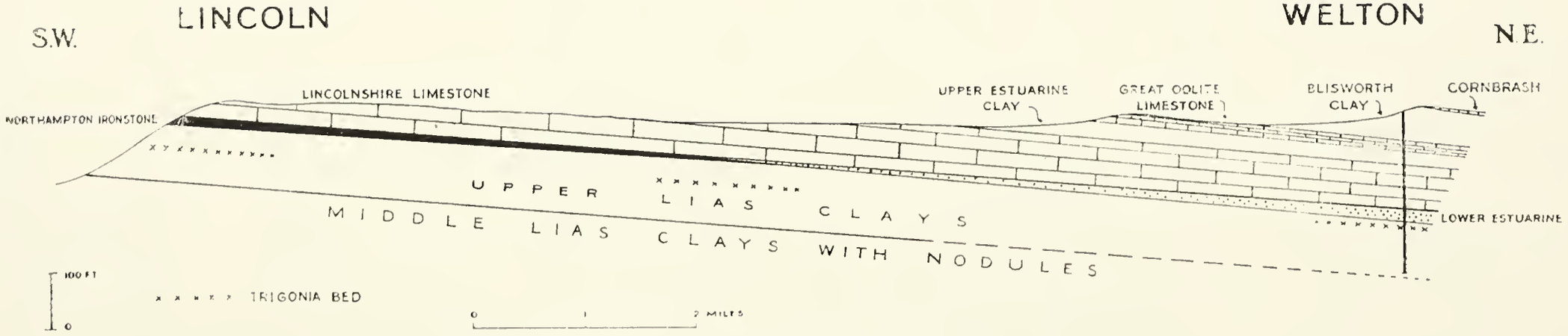
A BOREHOLE AT WELTON, NEAR LINCOLN

P. E. KENT, B.SC., PH.D., F.G.S.

In connection with supply of water to the Rural District, a cored borehole was put down in 1935 at a point one mile N.N.E. of Welton Church, starting at a horizon immediately beneath the Cornbrash, and ending near the base of the Upper Lias. The implications of the section in the earlier beds were included in the account of the Lias in the county brochure (Swinnerton and Kent, 1949, pp. 47-8), but no detailed account of the section has previously appeared.

At the time of the writer's examination the rock beds had been removed for road metal, and the surviving cores of the Great Oolite and Lincolnshire Limestone yielded no especially useful data. The borers' record is therefore summarised below for that part of the section. The cores of the Lower Estuarine Series and Upper Lias however were practically complete, and yielded information of much interest, for these beds are little known north of Lincoln. The thicknesses of individual beds of these lower formations given are as measured on cores, and total rather less than the depth of drilling as a result of incomplete recoveries of the softer beds. The section from above downwards was as follow:—

Superficial Deposits, 4 feet Soil and loose sand.	0—4 feet
Great Oolite Clay, 25½ feet Blue, yellow and green clay.	4—29½ „
Great Oolite Limestone, 17¾ feet Grey impure limestone with shale partings.	29½—47¼ „
Upper Estuarine, 26¾ feet Grey Shale 7 feet Grey limestone 2 feet Greenish shale 11 feet 6 inches Soft grey sandstone 6 feet 3 inches	47¼—74 „
Lincolnshire Limestone, 70 feet Yellowish grey limestone 23 feet 3 inches Grey limestone with shale partings 46 feet 9 inches	74—144 „



DIAGRAMMATIC SECTION THROUGH LINCOLN AND WELTON

Lower Estuarine, 21 feet	144—165	„
Greenish clay with a thin shelly bed at base	2′ 0″	
Purplish grey carbonaceous clay	1′ 0″	
Light grey clay with vertical plant fragments	7″	
Pale purplish fine sandstone	1′ 0″	
Purplish grey clay	9″	
Black pyritic clay with wood	1′ 7″	
Grey purple carbonaceous clay	2′ 4″	
Blue grey clay	1′ 0″	
Yellow-brown sand and sandstone with plant fragment	4′ 0″	
Light grey clay with wood and occasional rolled Liassic fossils	2′ 0″	
Pebble bed. Large black polished phosphatic nodules and rolled Upper Lias fossils in an ironstone matrix	2″	
Upper Lias, 95 feet proved	165—260	feet
Dark grey clay with cementstone nodules at base, *Hildoceras* sp. *Peronoceras*? belemnites	4′ 0″	
Dark grey pyritic shale with *Peronoceras*?	3′ 0″	
Soft shaly clay with abundant shells: *Trigonia pulchella* in top foot,—*Nuculana* sp. *Dactylioceras* belemnites and small gasteropods throughout	9′ 0″	
Grey clayey shale	8′ 6″	
Dark paper shale with ammonites	4′ 6″	
Soft grey unfossiliferous shale	29′ 0″	
Hard grey blocky shale softer below, with ammonites indet.	2′ 6″	
Hard grey blocky shale, with *Harpoceras* sp. very fine-ribbed *Dactylioceras* at top, and forms resembling *T. acutum* 4′ above base	18′ 0″	
Soft grey shale	4′ 0″	
Moderately hard dark grey micaceous slightly sandy shale	5′ 6″	

The Great Oolite Clay must be nearly complete, and the full thickness may be presumed to be between 26 and 30 ft. The Great Oolite Limestone appears from the drillers' description to be normally developed, and the Upper Estuarine below shows the very persistent " Estuarine Limestone " in the upper part; this may be recognised in the majority of boreholes in Central Lincolnshire.

The uppermost 23 feet of the Lincolnshire limestone (not available for examination) is presumably Hibaldstow Oolite, with more argillaceous Kirton Limestones beneath. The Lower Estuarine beds show the best development at present known in the county north of Sleaford, and have in the middle part a black carbonaceous clay similar in appearance and position to the " Coaly Bed " traced by L. Richardson

(1938) from the Kettering district to Grantham. At the base a thin ironstone bed with abundant derived Upper Lias fossils and large phosphatic nodules provides the only possible representative of the Northampton Ironstone, which is thus shown to thin out a short distance down dip from outcrop here as in other places both to north and south. This conglomeratic development, known also down dip in the north near Appleby, emphasises the importance of the erosional interval of early Inferior Oolite times.

The highest part of the Upper Lias yielded a number of small tuberculate ammonites resembling *Peronoceras* (the *A. fibulatum* group), suggesting that the *fibulatum* subzone may be present. There does not seem any other evidence of such a high horizon surviving in the county north of Grantham; elsewhere the phase of erosion responsible for the pebble bed has removed the higher zones and near the Humber the Northampton Ironstone or the pebble bed overlaps on to much lower parts of the Upper Lias clays. Certain identification, however, was not possible. Immediately beneath was a bed with *Trigonia pulchella* and other shells, possibly identical with that at Lincoln. The Welton bed is near the top of the Upper Lias, whereas the Lincoln shell bed is 40 feet down (Trueman, *Geol. Mag.*, 1918, p. 106), suggesting northerly attenuation of the highest clays or the regional overlap mentioned above taking place rapidly in this belt of country. At Nocton No. 2 boring a shelly bed which may be the same horizon is still lower—about 80 feet below the top of the Upper Lias.

The Ammonites from the lower beds drilled were not precisely comparable with known forms, but were stated by Professor A. E. Trueman, who kindly examined them, to be certainly from very early beds of the formation. *Tiltoniceras acutum*, with which they are tentatively compared, is the zonal index of the junction bed found characteristically at the top of the Middle Lias in Leicestershire and Northants, and known also at Bracebridge (Trueman, 1918). It is therefore probable that a few feet more drilling would have reached the Middle Lias marlstone. The Upper Lias is thus probably about 100 feet thick here as at Lincoln.

The writer is indebted to Professor A. E. Trueman for the examination of the ammonites, which have been deposited in the City Museum, Lincoln.

References

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POTTERY IN THE CLAY AT CHAPEL ST. LEONARDS

Professor H. H. SWINNERTON, C.B.E., D.SC., F.G.S.

In the month of August, 1951 Mr. and Mrs. T. A. Harrison, of Mansfield Woodhouse, Nottinghamshire, saw pottery protruding from the clay, just below the high tide mark, on the beach near to Chapel St. Leonards. They rescued it from the clay and presented it to the City and County Museum, Lincoln.[1] Mr. F. H. Thompson published an account of it in the *Antiquaries Journal* 1953.[2] He estimated the date of the pottery to be the second half of the thirteenth century. These facts culled from his interesting article provide food for reflections on the later phases in the history of the East Lincolnshire coastline.

It may be assumed, in the first place, that this pottery was thrown out on to some waste ground in the vicinity of human habitations. Evidently, at that time, this area was a habitable land surface lying at a level beyond the reach even of high tides. It has been shown elsewhere[3] that at the close of the Roman occupation this part of Lincolnshire had begun to subside and became occupied by uninhabitable salt marshes, subject to daily inundation by every rising tide. During the Norman period subsidence ceased and slight elevation took place which lifted the area once more beyond the reach of tidal waters so that it became habitable again in the thirteenth century.

At that time the outlook from Chapel eastwards must have been very different from what it is today. Instead of sea, there was a broad expanse of flat land. This had been built up since Roman times as mud flats and salt marshes, such as may be seen now around the Wash. The sea itself was miles away. Its waves were eating into a series of low banks behind the protection of which these salt marshes had developed.

The fact that the pottery was buried in clay indicates that slow subsidence had begun once more about the end of the thirteenth century. Once more the waters of the sea came stealing across the flats at every high tide and deposited mud in successive films upon their surface. These first surrounded, then covered and finally buried the pottery left by the people who abandoned the area and left it to possession by the sea. The same subsidence also lowered the level of the off shore barrier and thus helped to destroy it. Since then breakers and shore currents have been grinding at the beach which formed the seaward margin of the flats. Gradually, the flat land was worn away and the beach shifted westwards until in recent times it approached its present position. In August, 1951 the waves reached the spot where the pots had long been hidden and begun to wash away the clay which had enveloped them for centuries.

Today people living miles inland from the coast are still shielded from the destructive impact of tempestuous waves by the expanse of

[1] Lincoln Museum Accession number: 41-3.51.
[2] *Antiquaries Journal*, xxxiii, pp. 214-16. [3] *L.N.U. Transactions*, ix, p. 100.

flat land that lies between them and the sea. Occasionally the waves at very high tide break through the artificial coastal defences; and, because further slight subsidence has taken place, the water may steal quietly inland for several miles, and deposit mud around pottery that has been recently cast aside in back yards and paddocks. Thus the events which happened in the thirteenth century may be repeated in the twentieth century.

REPORT OF THE HON. SECRETARY AND TREASURER, 1954

A statistical basis of assessment shows that the past year has been largely one of growth and activity. For the first time in the history of the Union, the total membership has exceeded 400. In 1934, when we had 146 members, we determined to achieve a membership of 500 which was felt to be reasonable for this County. Since then we have been steadily climbing to that figure and now are well within the last one hundred. The increased membership, however, has brought fresh problems: field meetings are not so easily managed, administration is a greater burden and, as you will note in a moment, costs have greatly increased and some immediate remedial action is necessary. There have been more meetings this year—13 instead of the normal 10 or 11—and the attendances have been above average. Lectures, arranged in many cases jointly with the Lincolnshire Naturalists' Trust, have been a great success; record attendances exceeding 200 have been recorded on more than one occasion. Close association with the Trust has always been maintained but it is evident that still closer co-ordination of our programmes and activities will be valuable to both bodies to avoid duplication of meetings and to keep expenses as low as possible. There may be other avenues of collaboration worthy of examination.

On the financial side, expenses this year exceeded income by £60 10s. 2d.; this figure takes into account the fact that at the close of the year the account for the last issue of *Transactions* had not been settled, thus the balance shown at 31st December, 1954, should be reduced by £120 7s. 6d. to give a fair picture of the financial position. The balance available at the end of the year was £91 1s. 8d. compared with £147 10s. 4d. on 1st January, 1954. The deficiency on the year was accounted for largely by increased costs of circulars, postages and publications. For a subscription of 7/6 (3/6 in the case of Junior Members) each member received from the Union services and publications to the value of 9/4; this sum was made up as follows—stamps, 1/7½; circulars, 1/8½; stationery, 4d. and *Transactions* 5/10. It is clear that to issue a free publication annually to members on a subscription as low as 7/6 is no longer practicable with printing costs at present level. The effect of these high costs on our balances was reduced through the generous support of some members who contributed 10/- or more; these additional sums this year amounted to £21 8s. 6d. and over a number of years this extra payment has helped tremendously.

On the publication side, the high-light of the year has been the completion of six years' work on the second of the Lincolnshire Natural History Brochures—*The Birds of Lincolnshire*. This work appeared during April, 1955 and as General Editor I should like to take this opportunity to thank all who have made contributions to its pages and in particular those on whose shoulders the main burden of the type-scripts has rested—Mr. S. A. Cox in the initial stages and Mr. A. E. Smith and Mr. R. K. Cornwallis, joint authors of the final work. This booklet, published exactly forty years after the last List of Lincolnshire Birds by the late Rev. F. L. Blathwayt, is presented in confidence that it will, for many years to come, serve as a basis for ornithological research in this County. The help of members will be appreciated to encourage sales in the County: copies are available on sale or return with display notices where there are facilities for advertising.

The appeal to members to study hedgerow problems, made in April of last year by Mr. A. Roebuck, received very little support. Only two surveys have so far been submitted for Mr. Roebuck's consideration. If there are more in progress and likely to be completed it would be helpful to know. It was felt that this type of work was within the reach of every member and the response has been disappointing.

The following lectures were held in the Lincoln Technical College. On 16th January, Dr. F. A. Henson of the Department of Geology, Nottingham University, gave an illustrated lecture on the University Expedition to Iceland, 1953. On 3rd April Mr. Roebuck introduced the proposal to conduct a survey of the flora and fauna of the County hedgerows; there was a discussion on the problems involved. The Sectional Officers' Reports meeting was held on 13th November; reports were submitted by Miss E. J. Gibbons (Botany), Mr. G. W. Whatmough (Arachnology), Mr. R. K. Cornwallis (Ornithology), Mr. F. Norris (Mammals), Mr. H. M. Small (Entomology), Miss G. M. Waterhouse (Mycology), Mr. T. B. Parks and Sgt. P. Cambridge (Geology) and the President (Coleoptera). Mr. Bruce James and Mr. G. N. Holland showed photographic slides and prints; there was an exhibition of members' specimens. A lecture arranged jointly with the Lincolnshire Naturalists' Trust on 4th December was given by Dr. Niko Tinbergen, of Oxford University; his subject was " Experiments in adaptive colouration in animals."

The Annual General Meeting was held in Lincoln on 13th March, 1954. Mr. R. K. Cornwallis, B.A., M.B.O.U., presided. Mr. E. C. Riggall, of Louth, was elected President for 1954-5 and Miss G. M. Waterhouse, M.Sc., of the Commonwealth Mycological Institute, was elected President-elect. The Honorary General Secretary-Treasurer, F. T. Baker was re-elected. Mr. Bruce C. James was re-appointed Honorary Field Secretary and Mr. A. D. Townsend, Honorary Assistant Treasurer. The Honorary Auditor, Mr. Robert Withers, was re-appointed and thanked for his services. An addition was made to the

sections and Mr. Frank Norris was appointed secretary for Mammals—a sub-division of Vertebrate Zoology. The following six representatives were appointed to serve on the Council of the Lincolnshire Naturalists' Trust for 1954-5: Professor C. G. C. Chesters, Professor W.D. Evans, Dr. R. Hull, Mr. R. K. Cornwallis, Miss E. J. Gibbons and Mr. A. Roebuck. Dr. S. H. Robinson was elected to represent the Union on the Lindsey and Holland Rural Community Council and Miss E. J. Gibbons on the Wild Plant Conservation Board. The President delivered his address on " Bird Migration and Population." He was thanked by Mr. A. D. Bates for his address and for the stimulating lead he had given to the Union's activities during the two years of his presidency.

Membership. The total membership for the first time in the history of the Union exceeds 400 and shows an increase of 29 on last year. The details are as follows:—

Life Members	20	403
Ordinary Members	340	
Junior Members	37	
Groups in membership	6	

Thirty-five Ordinary Members, seven Junior Members and two Groups joined during the year. There have been losses by death, resignation and lapsed subscriptions.

The following have been elected during 1954:—

ORDINARY MEMBERS:

Miss S. R. Amner, Flat 4, Holyrood House, Churchgate, Spalding.
Mr. D. H. Ball, M.I.MUN.E., A.I.W.E., 6 Bridge Street, Boston.
Miss D. Barningham, Rothwell Rectory, Caistor.
Miss A. M. Bond, 2 South Street, Louth.
Mr. R. J. Bowler, B.SC., N.D.A., Riseholme Farm Institute, Lincoln.
Mr. H. G. Brooke, A.A.C.C.A., Monson Chambers, Corporation Street, Lincoln.
Mrs. G. M. Buck, 103 Morton Terrace, Gainsborough.
Mr. J. H. Chandler, 43 Roman Bank, Stamford.
Mr. J. N. Clarke, 22 Park View, Woodhall Spa.
Mr. and Mrs. A. Crompton, Woodleigh, Heighington, Lincoln.
Miss B. Y. Dunning, Hall Gardens, Canwick, Lincoln.
Mr. and Mrs. L. A. Forscey, 19 Belton Lane, Grantham.
Mr. B. S. Foster, School House, Holton-le-Moor, Lincoln.
Mrs. M. Godsmark, 7 St. Mary's Lane, Louth.
Mrs. J. E. Holgate, 24 Dear Street, Market Rasen.
Mr. G. E. Hyde, F.R.E.S., 20 Woodhouse Road, Doncaster.
Mrs. E. M. Keall, 12 Egerton Road, Lincoln.
Miss G. R. Kemp, B.SC., 4 Auckland Road, Scunthorpe.

Mr. R. M. Lawton, M.A., 52 Broadway, Lincoln.
Dr. D. McKnight, Thirkell House, 9 Queens Road, Boston.
Mr. J. A. Nash, 39 St. Mary's Street, Stamford.
Miss P. M. Read, Brook House, Hemingby, Horncastle.
Mr. E. A. Ranshaw, F.Z.S., 2 Curle Avenue, Lincoln.
Mrs. M. E. M. Ruddock, Boothby Graffoe Hall, Navenby.
Mr. T. R. Shaw, 6 Nettleham Close, Lincoln.
Mrs. C. Shepherd, 78 Yarborough Crescent, Lincoln.
Mr. R. E. Spence, 154 Lea Road, Gainsborough.
Miss M. C. Tate, S.R.N., S.C.M., The Peak, Ferry Road, Barrow-on-Humber.
Miss K. M. Taylor, 9 Windsor Terrace, Boston.
Mr. L. Tebbutt, 28 St. Paul's Street, Stamford.
Mr. S. Van den Bos, Millfield, Goxhill.
Mr. J. Wilkin, 28 Scartho Road, Grimsby.
Mr. W. T. Withers, 119 Yarborough Road, Lincoln.

JUNIOR MEMBERS:

Mr. D. N. Balderson, 38 Haycroft Street, Grimsby.
Miss J. M. Churchill, 23 Bruce Road, Lincoln.
Mr. J. A. Duell, 47 Chelmsford Avenue, Grimsby.
Miss P. M. Fox, 26 Dear Street, Market Rasen.
Mr. E. J. Keall, 12 Egerton Road, Lincoln.
Mr. J. P. Slater, The Old Recory, Candlesby, Spilsby.
Mr. J. A. M. Thomson, 16 Dudley Street, Grimsby.

GROUPS:

City School Naturalists' Society, Lincoln.
Digby Village School, Sleaford.

It is with deep regret that we record the death of three members of long association with the Union. Mr. Ernest Wainwright of Sudbrook, Lincoln died in March; he had been a member for twenty-four years and had contributed much to the work of the Union first in geology and later in microscopy. He was secretary of the Microscopy Section up to his death. Mr. Richard Mason of Lincoln, who died in August, had contributed ornithological notes for many years. He had been a member for almost twenty years and during that time presented his father's magnificent collection of albinos and hybrids to the City and County Museum at Lincoln. For thirty-two years Mr. Frank Waite of Boston, who also died in August, had been attending our meetings and had often entertained the members and guided our excursions around Boston. He was a botanist and in the minds of many members will always be associated with his contemporaries the late S. J. Hurst and Fred Kime.

REPORT OF HON. FIELD SECRETARY, 1954

Seven field meetings were held during the year.

The 269th meeting was held on May 15th at Pelham's Pillar Wood, near Caistor, by permission of the Earl of Yarborough. Mr. S. A. Cox led this meeting which was primarily ornithological. A strong breeze kept the birds fairly quiet. Most members present were able to inspect a Long-tailed Tit's nest in a tall gorse bush. Late in the afternoon a Redstart was identified.

The 270th meeting was held at Pickworth near Stamford on the county boundary and permission to visit was granted by Mr. J. Davenport-Handley of Clipsham Hall and the Forestry Commission. Mr. A. E. K. Wherry opened the meeting in a well-known limestone quarry that has supplied stone for many famous buildings, including the House of Commons. Mr. Wherry, after describing the geology of the quarry, introduced three new members with whom he had made a preliminary survey. Lunch was taken on the site of the old Holy Well and the Roman smelting works. The meeting then split up into three groups which were led by Messrs. L. Tebbutt, J. H. Chandler and J. A. Nash. The care of the preliminary survey was soon apparent as eleven species of orchids were seen during the afternoon. Birds were not very apparent. A fair numer of spiders were found and entomologists had Speckled Wood butterflies and a Burnet Campanion moth amongst their finds. Mr. J. H. Duddington found some moth eggs which hatched out later at his home and turned out to be one of the Brocade moths.

The 271st meeting was held at Fillingham on July 10th. Mr. A. Rose, of Fillingham Castle kindly granted permission for this visit. No section had much of interest to report. However, if the County is to be systematically covered it is just as useful to know the areas where little is to be found as those rich in wild life. The park around the castle had a normal limestone flora; the lakeside produced a characteristic flora. The lake had a large population of Coots in all stages of development. Two pairs of Great Crested Grebes were seen, also two young of the same species. Other birds noted included Spotted Flycatchers, Sedge Warblers, Tree Creeper and Bullfinch.

On August 14th the President led the 272nd meeting at Alkborough and very kindly entertained the large party of 60 to tea. Mrs. Rudkin and Mr. F. T. Baker gave short talks on the very interesting history and archaeology of the area. Lunch was taken close to the medieval maze known as " Julian's Bower " which is cut out of the turf and overlooks the confluence of the rivers Trent, Ouse and Humber. The area was also of great geological interest. The main party followed the Cliff path along Trentfalls to Burton-upon-Stather. A spring on the cliff known as Kell Well produced several " star

stones " in reality fossil segments of a sea-lily stem (crinoids) washed out of the Lias Clay. Fossils of several types were found at all levels on the cliff and plants of varying habitats noted in close proximity to each other due to the rapid changes of the varying strata. Only common lepidoptera were found, also a number of very small beetles. During the day one juvenile Marsh Tit and one Wheatear were seen.

The 273rd meeting took place at Saltfleet on September 11th. Mr. P. E. Gipps led a party of ornithologists which observed the usual autumn coastal species which included: Bar-tailed Godwit, Curlew, Wheatear, Grey Plover, Redshank, Greenshank, Green Sandpiper, Curlew Sandpiper and a Whimbrel which unfortunately was shot down within sight of the party. An interesting habit of the Curlew Sandpipers was observed, all sandworms being washed in the water before being consumed.

The usual maritime flora was found, a large expanse of Sea Lavender looked particularly fine. An unsuccessful search was made for the Natterjack toad—the last known stronghold for this creature in Lincolnshire.

The 274th meeting—the Fungus Foray—was held at Canwick Hall near Lincoln on October 9th. The Bursar, Jesus College, Oxford and Mr. Willoughby of Canwick Hall granted permission to visit the grounds around the Hall. Miss G. M. Waterhouse led the meeting. The park yielded few fungi apart from five species of Ink Cap. Small *Galactinia howsei* were found on the lawns, this species has only once been recorded in the British Isles before. In all 76 species of fungi were found. Mr. C. T. Beverley and Mr. A. D. Townsend took an ornithological group to the Canwick Sewage Farm. Thirty snipe, 200 lapwings, a Green Sandpiper, two Teals and two Grey Wagtails were observed.

The 275th meeting to observe birds on autumn passage took place at Gibraltar Point Nature Reserve on October 30th. Mr. A. E. Smith received the party and explained the geography of the reserve, members were then free to pursue whatever route they desired. Mr. Harold Hems very kindly led a group well out on to the mud flats where about 200 widgeon were seen, and returning via the shingle spit the group approached a very large bull seal lying on the sand. A number of Goldcrests and Redwings were seen—one of which was trapped and ringed. Tea in Skegness was rushed and the customary resumé of the day's finds was not held in order that members could return to the reserve to witness the evening flight of geese. Unfortunately, this spectacle was missed by just a few minutes—the geese having returned a little earlier than usual that evening.

Detailed finds of most sections during field meetings are to be found in the Sectional Officers' reports.

SECTIONAL OFFICERS' REPORTS

BOTANY

Miss E. J. Gibbons

A cold late spring followed by a wet and sunless summer have not been encouraging either for the plants or for those who look for them.

The first L.N.U. field meeting was intended for birds, however the lack of flowers raised problems for thought. The Pelham's Pillar Woods, near Caistor, were open country until after 1800. The absence of flowers was an indication of the difference between new woods and those with an indigenous flora. The common Shield Fern (*Dryopteris dilatata*) was growing under the second generation of trees in some quantity. A few members found a small patch of Bluebells and Early Purple Orchis (*O. mascula*) which suggested that they were growing in a bit of original woodland.

The June meeting was remarkable for the variety of plants seen in Holywell Wood and over the Rutland border and on the Lincolnshire Limestone. Messrs. L. Tebbutt, J. H. Chandler and J. A. Nash provided us with a feast of interesting and beautiful flowers too many to enumerate here. Horseshoe Vetch (*Hippocrepis comosa*), Man Orchis (*Aceras anthropophora*), Sweet Briar (*Rosa rubiginosa*), Wayfaring Tree (*Viburnum lantana*) and seven more orchids were seen during the day.

Fillingham in July was not so prolific but the water plants were pretty round the Lake. Yellow Flags (*Iris pseudacorus*), Water Forget-me-not (*Myosotis palustris*), Ragged Robin (*Lychnis Flos-cuculi*) and Waterlilies were the most showy. Some calcareous grasses were seen in the park but much of the pasture had been reseeded. A patch of bracken was unexpected.

At Alkborough members spent some time on the ridge above the R. Trent where they found Carline Thistle (*Carlina vulgaris*), Autumn Gentian (*G. amarella*) and Wild Thyme (*Thymus serpyllum*). Lower down marsh plants were seen, and Giant Horsetail (*Equisetum maximum*) which is a new record for the district.

Saltfleet I was sorry to miss, but visited the sandhills ten days later. Brookweed (*Samolus valerandi*) and Sea Rush (*Juncus maritimus*) were abundant in the slacks. Autumn Gentian (*G. amarella*) was seen by the L.N.U.

At the Fungus Foray at Canwick, the Park seemed likely to produce few flowers, so a stream at Branston Moor and the bank of a dyke at Branston Booths were explored which resulted in many plants being recorded including Guelder Rose (*Viburnum opulus*), Hemp Agrimony (*Eupatorium cannabinum*), Small Toadflax (*Linaria Elatine* and *minor*), *Carex lepidocarpa*, also Lesser Water Plantain (*Baldellia*

ranunculoides), Brookweed (*Samolus valerandi*), Opposite and Shining Pondweeds (*Potamogeton densus* and *lucens*) and Floating Clubrush (*Scirpus fluitans*).

At Gibraltar Point the large proportion of rainwater on the salt marsh had a bad effect on the *Salicornias* which made them go rotten. Horn Poppy (*Glaucium luteum*) has appeared in a new place due probably to the floods of last year, also Rock Sea Lavender (*Limonium binervosum*) which grows on shingle at the other side of the Wash.

NEW COUNTY RECORDS, 1954.

Glyceria declinata	7, 8,	det. C. E. Hubbard, Kew (1952)
„ *fluitans plicata*	15	„ „ „
Hieracium strumosum	3	det. P. D. Sell, Cambridge.
Scrophularia vernalis	15	M.B. & K.J.B.
Smyrnium olusatrum	16	J. H. C.

NEW DISTRICT RECORDS.

Adonis annua	16	J.H.C.
Astragalus danicus	4	E.J.G.
Avena fatua	15	R.L.H. & B.H. & E.J.G.
„ *pratensis*	6	L.N.U.
Cardamine flexuosa	10	E.J.G.
Carex echinata	3	„
„ *lepidocarpa*	7 & 13	„
Equisetum maximum	2	L.N.U.
Festuca bromoides	17	E.J.G.
„ *myuros*	15	„
Helleborus viridis	7	„
Impatiens Roylei	15	G. E. Orchard.
Lathyrus sylvestris	16	J.H.C.
Limonium binervosum	11	E.J.G.
Melilotus alba	9	
Ophioglossum vulgaris	16	K.W.
Orchis praetermissa	8	E.J.G.
Papaver hybridum	15	R.L.H. & B.H. & E.J.G.
Poa compressa	18	E.J.G. & S.A.
Ranunculus Drouettii	15	R.L.H.
„ *sceleratus*	15	
Salix fragilis	10	M.N.R.
Sanguisorba officinalis	10	„
Sedum acre	17	E.J.G.
Verbascum nigrum	16	J.H.C.
Veronica montana	10	E.J.G.

Botanical Records—continued.

List of Contributors.

S.A.	Miss S. R. Amner.	R.L.H. & B.H.	Mr. and Mrs. R. L. Howitt.
M.B.	Miss M. Baines.		
K.J.B.	Mr. K. J. Beaney.	M.N.R.	Miss M. N. Read
J.H.C.	Mr. J. H. Chandler.	K.W.	Mrs. Arthur Wherry.
E.J.G.	Miss E. J. Gibbons.		

Mosses. Mr. G. H. Allison records:

Orthodontium linare=*O. gracile* var. *heterocarpum* Wats. at Langton-by-Spilsby, April, 1953. The plant was in good fruiting condition. It is the second record for this species in the county. The earlier record was at Laceby, 1934.

MYCOLOGY

Miss G. M. Waterhouse, m.sc.

The 1954 fungus foray was held in the grounds of Canwick Hall, Lincoln. Three different areas were worked over: the park sloping down from the limestone ridge to the gravelly ground in the valley, the garden of the house, and a neighbouring wood. The park must formerly have been a beautiful spot, planted with a variety of ancient and graceful trees, many of which have been cut down. We did not find the usual wealth of fungi, but what the harvest lacked in quantity it made up for in quality, and it was interesting and unusual. The most noticeable feature was the lack of white-spored agarics—no milkcaps, no russulas, no amanitas, no lepiotas—but instead a variety of black-spored forms, including no less than five different ink caps. Some of these were out-size specimens, and most were grouped around the tree stumps. On the stumps there were many different bracket fungi, mostly polypores which had probably necessitated the felling of the trees. The commonest specimens in the grass of the meadow were two yellowish agarics, one with a cap like a pixie hood—this was the dark-spored *Psilocybe semilanceata*, common also on lawns—and the other a slimy, frail fungus with brown spores, *Bolbitius vitellinus*. Also in the grass, as one would expect, were a number of *Hygrophorus* species, white (*H. virgineus*), peach or biscuit-coloured (*H. pratensis*), yellow and green (*H. psittacinus*), and a tiny, uncommon red one (*H. reaii* var. *insipida*).

On the garden lawn were more ink caps and also a small cup fungus with a lilac brown interior. This proved to be a rare find, *Galactinia howsei*, only once before reported in the British Isles. Beyond the lawn was a rough area, much cut over and with many burnt patches. These patches are always rewarding because of the interesting cup fungi found on them. Sometimes they do not grow

anywhere else. We found two such fungi—a brown (*G. sarrazinii*) and a yellow (*Anthracobia melaloma*), both uncommon.

The wood just beyond the Hall was an excellent area, and it was a pity that we did not know this earlier. The elder trees were covered with Jew's ears on the dead parts, which delighted the younger members of the party. The brackets of *Polyporus betulinus* on the birch trees were of an unusual size. Sticks on the ground bore *Mycena galericulata* in profusion. It was here that the one Myxomycete of the foray was found. When discovered it was a piled-up mass of yellow slime on a Sycamore stump. During the week-end it changed to a red-brown mass of closely packed vertical tubes containing spores. Its name describes it exactly—*Tubifera ferruginosa*, a new record for Division 13.

Of the 76 specimens named, 12 were new records for the county and 20 for division 13. It was good to have so many youngsters present and to see them so keen to find things and interested in what was found.

Specimens were received from one other field meeting. Mrs. Rudkin sent three fungi from the Fillingham Park meeting in July; two were new records for division 6. Apart from these, 60 specimens or records were sent in up to the end of October. Mr. Geo. Allison, still keenly interested, sent some very fine hygrophori, three of which were new records for division 11, and a large cup fungus from the base of a wall (also a new record). Miss Joan Bows and her pupils at Silk Willoughby sent a large batch of fungi they collected in January; it contained one new record for the county, a rather dull-looking thing on a twig, and 9 new ones for division 14. Miss Madeline Tyson and her pupils at Market Rasen sent specimens at various times from a number of places; nine were new records for divisions 3, 7 and 9. These two schools have done very well and I should like to suggest that any school studying the natural history of an area should include the fungi, because the study will not be complete without them and the children will learn how interesting fungi are. Other new records come from a collection Miss Tyson and I made at Skellingthorpe woods after the autumn foray. We found three fungi not previously recorded in the county and three for division 13. Mr. G. N. Holland sent several specimens of micro-fungi, also from division 13, including three new for the county and three for the division. In all this makes 8 new county records and 34 divisional, which together with the foray makes 16 for the county and 49 for the divisions.

In conclusion I should like to thank all those who have helped with these records, for without their help our county list would be at a standstill.

FUNGUS FORAY, CANWICK HALL PARK

October 9th, 1954

New records for the county.

Collybia ambusta Fr.
Marasmius undatus Berk.
**Mycena arcangeliana* var. *oortiana* Kuhn.
**M. lasiosperma* Bres.
**Hygrophorus reaii* var. *insipida* Pears.
Coprinus radians (Desm.) Fr.
Psathyrella gossypina (Bull.) Pears.
Psathyrella obtusata (Fr.) A. H. Smith.
**Galactinia howsei* Boud.
**G. sarrazinii* Boud.
**Anthracobia melaloma* (Alb. & Schw.) Boud.
**Pyronema domesticum* (Sow. ex Fr.) Sacc.

New records for division 13.

Tricholoma rutilans (Schaeff.) Fr.
Mycena ammoniaca Fr.
**Clitocybe cerrussata* Fr.
Pleurotus dryinus (Pers.) Fr.
**Pluteus phlebophorus* (Ditmar) Fr.
Psathyrella disseminata (Pers.) Fr.
P. gracilis Fr.
Panaeolus campanulatus var. *sphinctrinus* (Fr.) Bres.
Psilocybe foenisecii (Pers.) Fr.
Bolbitius vitellinus (Pers.) Fr.
Trametes rubescens (A. & S.) Fr.
T. gibbosa (Pers.) Fr.
Daedalea confragosa (Bolt.) Fr.
**Polyporus stipticus* (Pers.) Fr.
Fomes annosus Fr.
Ganoderma applanatum (Pers.) Pat.
Nectria cinnabarina Fr.
**Calycella citrina* (Hedw.) Quél.
**Ascophanus keithii* (Phill.) Boud.
Tubifera ferruginosa Gmel.

Other identifications—not new records.

Tricholoma nudum Fr.
T. melaleucum(Pers.) Fr.
Mycena galericulata (Scop.) Fr.
Collybia radicata (Rehl) Berk.
Hygrophorus psittacinus (Schaeff). Fr.
H. pratensis (Pers.) Fr.
H. virgineus (Wulf) Fr.
H. conicus Fr.
Pluteus cervinus (Schaeff.) Fr.
Pholiota spectabilis Fr.
P. squarrosa (Mull.) Fr.
Tubaria furfuracea Gillet
Galera tenera (Schaeff.) Fr.
Stropharia aeruginosa (Curtis) Fr.
S. semiglobata (Batsch) Fr.
Hypholoma fasciculare (Huds.)Fr.
Psilocybe semilanceata Fr.
Psathyrella atomata Fr.
Panaeolus campanulatus Fr.
P. papilionaceus (Bull.) Fr.
Anellaria semi-ovata (Sow.) Pears. & Dennn.
Coprinus micaceus (Bull.) Fr.
C. atramentarius (Bull.) Fr.
Coprinus comatus Fr.
C. plicatilis (Curt.) Fr.
Polyporus adustus (Willd.) Fr. on beech
P. betulinus (Bull.) Fr. on silver birch.
P. hispidus (Bull.) Fr. on walnut.

not new records—continued.

Polystictus versicolor Fr.
Poria mucida (Pers.) Fr.
Stereum purpureum (Pers.) Fr.
Auricularia auricula-judae Schroet.
A. mesenterica (Dicks.) Fr.
Calocera viscosa (Pers.) Fr.
Dacromyces deliquescens (Bull.) Duby
Phallus impudicus Pers.
Calvatia gigantea Batsch
Lycoperdon pyriforme (Schaeff.) Fr.
Helvella crispa Scop.
Coryne sarcoides (Jacq.) Tul.
Daldinia concentrica Bolt. on ash
Xylaria polymorpha Grev.
X. hypoxylon (L.) Grev.
Rhytisma acerinum on sycamore.

OTHER RECORDS, 1954

New records for the county.

Russula graminicolor (Secr.) Quél. 13
R. versicolor Schaeff. 13
Boletus reticulatus (Schaeff.) Boud. 13
**Peniophora caesia* (Bres.) Bourd. & Galz. 14
Botryotrichum piluliferum Sacc. and Marsh 13
Petriella asymmetrica Curzi 13
Stysanus fuscus (Corda) Mason & M. B. Ellis 13
Protascus subuliformis Dang. 13

New divisional records.

Armillaria mellea (Vahl.) Fr. 14
Tricholoma personatum Fr. 14
T. gambosum Fr. 6
T. sulphureum (Bull.) Fr. 7
T. fulvum (DC) Fr. 7
Collybia radicata (Rehl) Berk. 6
Mycena galericulata (Scop.) Fr. 14
Hygrophorus obrusseus Fr. 11
H. puniceus Fr. 11
H. unguinosus, Fr. 11
H. nigrescens Quél. 7
H. coccineus (Schaeff.) Fr. 7
**Omphalia umbellifera* (L.) Fr. 7
Lactarius deliciosus (L.) Fr. 7
L. glycyosmus Fr. 13
L. subdulcis (Pers.) Fr. 13
Tubaria furfuracea (Pers.) Gillet 14
Hypholoma candolleanum Fr. 13
Schizophyllum commune Fr. 6
Polyporus squamosus (Huds.) Fr. 9, 14
Polystictus versicolor (L.) Fr. 14
Stereum hirsutum (Willd.) Fr. 14
S. purpureum (Pers.) Fr. 14
**Corticium laeve* (Pers.) Quél. 14

Auricularia auricula-judae Schroet.	14
Mutinus caninus (Huds.) Fr.	3
Xylaria hypoxylon (L.) Grev.	14
Nectria coccinea Petch	14
**Peziza vesiculosa* Bull.	11
Morchella rotunda (Pers.) Boud.	7
Puccinia cyani Pass. on Cornflower	13
Epicoccum purpurascens Ehr. ex Wallr.	13
Ophiostoma narcissi	3

* I am much indebted to Dr. Dennis and Mr. Reid of the Herbarium, Royal Botanic Gardens, Kew, for these identifications. The remaining identifications were carried out by Miss Waterhouse and members of the Commonwealth Mycological Institute.

GEOLOGY

Sgt. Philip Cambridge and T. B. Parks.

1. **Clipsham Old Quarry. 123/982155. Lincolnshire Limestone and Upper Estuarine Series.**

Although this quarry is not situated within the county, the beds exposed are a continuation of those which underlie a large part of Lincolnshire. On the whole the succession is the same as that displayed in the large quarries at Ancaster. Owing to restricted time attention was focussed on the Upper Estuarine Series and among the fossils collected were:—

"*Astarte*" *fimbriata* Lycett..
Cuspidaria ibbetsoni (Morris).
Modiolus imbricatus J. Sowerby.
Ostrea hebridica Forbes.
Proenella lycetti? (Cossman).
Amberleya cf *bathonica* Cox & Arkell.
Burmirhynchia sp.
Fish vertebra.

2. **Roadside Quarry near Carlby. 123/032136. Lincolnshire Limestone.**

A small quarry which yielded a mass of the compound coral *Placophyllia gracilis* Tomes.

3. **South Rauceby Quarry. 113/033454. Lincolnshire Limestone.**

Pseudolimea interstriata (Phillips).
Lima (*Plagiostoma*) *rodburgensis* Whidborne.
Ostrea sp. (small and very abundant).

4. **Heath Farm Quarry, North Rauceby. 113/022474. Lincolnshire Limestone.**

A single fossiliferous bed of hard compact limestone occurs about four feet from the base of the section. Several species of corals occur

commonly but are usually largely replaced by calcite and indeterminate. The following species have been identified:—

Ampullella adducta (Phillips).
Lucina bellona d'Orb (common).
Echinoid tests.
Montlivaltia sp.
Terebratulid.

5. **Leadenham Limestone Quarry. 113/963523, Lincolnshire Limestone.**

Pinna ?cuneata Morris & Lycett.
Pholadomya lirata J. Sowerby.
Modiolus (*Inoperna*) *plicatus* J. Sowerby.
Laccopteris woodwardi (Leckenby).
Lithophaga inclusa (Phil.) (Boring in a compound coral).
Placophyllia gracilis Tomes.

The presence of a pinnule of the fern *Laccopteris* is interesting as it points to the proximity of land.

6. **Coleby Limestone Quarry. 113/979602. Lincolnshire Limestone.**

Pholadomya lirata J. Sowerby.
Gresslya abducta (Phillips).
Pteroperna clypeata (Witchell).
Isastraea sp. aff *davidsoni* (Ed. & Haime).

Thanks are due to Dr. Cox and Dr. Dighton-Thomas of the British Museum, for help in the identification of specimens.

7. **Cornbrash from road between Aunsby and Culverthorpe.**

The following list of fossils was given by Mr. V. D. Dennison. The presence of the ammonite *Clydoniceras* and the brachiopod *Cererithyris intermedius* serve to date the bed as Lower Cornbrash and the record is interesting as it will help to define the limits of these deposits.

Pholodomya deltoidea J. Sowerby.
Modiolus imbricatus J. Sowerby.
Clydoniceras discus J. Sowerby.
Anisocardia islipensis (Lycett).
Cererithyris intermedius (J. Sowerby).
Kallirhynchia yaxleyensis (Walker).

8. **Elsham, Melton Gallows and Wrawby Cutting.**

Mr. T. B. Parks has kept the above sections under observation and ammonites collected were sent to the British Museum for identification. Dr. L. F. Spath reports that the examples from Elsham were all species of *Rasenia* or close allies. He also notes that they are all from the Lower Kimmeridge Clay and must have been washed out of the clay when the Spilsby Sandstone was accumulating in shallow water.

The fossils from the pit at Melton Gallows are a similar assemblage. The Kimmeridge Clay ammonites from the railway cutting at Wrawby are also from the *Rasenia* beds near the base. The following specimens turned out to be of particular interest:—

Ammonite Rasenia aff. *similis* (Wrawby).
A. Rasenia sp. nov. (Gallows Pit).
Prorasenia aff. *Bowerbanki* (Elsham).
Pararasenia sp. juv. (Elsham).

An oyster attached to *Rasenia* aff. *similis* (Wrawby) was identified as *Ostrea bononiae* Sauv.

9. **Record of water bore put down by W. F. Pettifer and Son, Ltd., at Stone Farm, Thoresway, 1954.**

Top soil	1′ 0″			
Chalk	67′ 0″	68′ 0″		
Red Chalk	10′ 0″	78′ 0″		
Carstone Grit Sand	27′ 0″	105′ 0″		
Sandy Blue and Green Clay ..	20′ 0″	125′ 0″		
Ironstone	9′ 0″	134′ 0″		
Upper Tealby Clay with stone beds	46′ 0″	180′ 0″		

Water rest level at 93′ 0″
Yield of bore 300 gallons per hour.

ENTOMOLOGY

H. M. Small

Butterflies. The past season was one of the worst for many years. The cloudy, often rainy weather, particularly during the summer months, had an adverse effect on the butterfly population so that many of our usually common species were notably scarce, particularly in the insect stage.

The Browns (*Satyridae*) were more commonly seen on the wing than other species. The grasses on which their caterpillars feed grew in such abundance that they possibly provided extra food and protection from enemies, thus such species as Wall (*P. megera*), Small Heath (*C. pamphilus*), Meadow Brown (*M. jurtina*), and Greyling (*E. semele*), were quite plentiful in some localities.

Species other than the Browns have been relatively scarce, particularly those species which immigrate from the continent. The two which are usually the commonest the Large and Small Whites (*P. brassicae* and *P. rapae*) did not arrive in the county in sufficient numbers to cause any real damage to our cabbage crops.

Red Admirals (*V. atalanta*) were present in the autumn in small numbers. No Painted Ladies (*V. cardui*) were reported. In view of this scarcity of immigrants, it was therefore a surprise to see a male Clouded Yellow (*C. croceus*) flying over my garden at Skellingthorpe in

August. Our resident Peacocks (*N. io*) and Small Tortoiseshells (*A. urticae*) were only seen in small numbers. From Skellingthorpe Woods, the Rev. Canon G. Houlden noted White Admirals (*L. camilla*) on 21st July in good condition and about twenty-five Chequered Skippers (*C. palaemon*) which he saw flying along the rides on May 27th, the weather on that particular day being fine and warm. He also noted a single Comma (*P. c-album*); Mr. F. L. Kirk reported another from Woodhall Spa. Even allowing for the past two or three seasons being poor ones for butterflies in general, the Comma appears to have decreased in numbers to a very marked extent in the county, where eight years ago it had become plentiful. At Theddlethorpe St. Helen, Canon Houlden saw about ten Green Hairstreaks (*C. rubi*) flying among the bushes on the sand hills. He also noted a single Ringlet (*A. hyperantus*) remarkable on account of it being so far from its usual haunts, the more wooded parts of the county. From the Woodhall Spa district Mr. F. L. Kirk noted Dark Green Fritillary (*A. aglaia*) and Pearl-bordered Fritillaries (*A. euphrosyne*) both species being scarce, White Admiral (*L. camilla*), Purple Hairstreaks (*T. quercus*) and Brown Hairstreaks (*T. betulae*); this latter species he obtained by beating for their larvae which he subsequently reared. There has not been any report of the state of the colony of Chalk Hill Blues (*L. coridon*) at Ancaster. Mr. Kirk reported that each time he attempted a visit, it had to be abandoned because of rain.

Moths.—The season was rather more favourable to the moths. They were not so troubled by the lack of sunshine, and on many nights quite large numbers were on the wing. Almost all the records received were for insects captured in light traps or when they were attracted to light, the rainy weather preventing searching in the day-time or beating for caterpillars.

As with the butterflies immigrant species were scarce. No Deaths Head Hawks (*A. atropos*) or Humming Bird Hawks (*M. stellatarum*) were reported, and the usually plentiful Silver Y (*P. gamma*) was remarkably scarce. Of the larger Hawk moths the Poplar Hawk (*L. populi*) was the one most commonly seen. Mr. F. L. Kirk reported Broad-bordered Bee Hawks (*H. fuciformis*) and the Small Elephant Hawk (*D. porcellus*) from Woodhall Spa. Other species he noted from the same locality were Emperor (*S. pavonia*) and Ruby Tiger (*P. fuliginosa*) on May 8th. The Lesser Swallow Prominent (*P. dictaeoides*), Canary Shouldered Thorn (*D. alniaria*) and Streak (*C. legatella*) were attracted to light. Mr. J. L. Cox, secretary of the Scunthorpe Area Naturalists, reported the following moths that the group had collected: Pebble Hook Tip (*D. falcataria*), Fox Moth (*M. rubi*) and Wood Tiger (*P. plantaginis*) in June from Scotton Common. From the Scawby Woodlands Mr. J. H. Duddington noted Scarce Silver Lines (*P. bicolorana*) and Oak Hook Tip (*D. binaria*) a number of their caterpillars were present on oak. Other moths noted were the Small Scallop (*S. emarginata*), Small Yellow Wave (*H. luteata*) and Brown Rustic (*R. umbratica*).

In the spring Mr. Duddington found caterpillars of the Broad-bordered Yellow Underwing (*L. fimbriata*) which subsequently produced moths. This moth was at one time plentiful in Lincolnshire but is now scarce. From Scotton Common Mr. Duddington noted Barred Chestnut (*D. dahlii*) and Sandy Carpet (*P. flavofasciata*). Mr. R. K. Cornwallis records the Dusky Swallow (*E. ochroleuca*), Small Wainscot (*A. pygmina*), Northern Spinach (*L. populata*) and Red Underwing (*C. nupta*) from Legsby where they were attracted to light. He noted that the Figure-of-Eight-Moth (*E. caeruleocephala*) was unusually common there in the autumn.

Canon Houlden found a black form of the Peppered Moth (*B. betularia*) in his vicarage garden in High Street, Lincoln.

The following list, 113 species in all, is a complete record of all the moths which Mr. G. A. T. Jeffs captured in his mercury vapour moth trap during 1954. The trap was situated in his garden which is in a built up part of the outskirts of Grimsby:—

Hepialidae.	
Common Swift (*H. lupulinus*)	Very common as usual.
Ghost Swift (*H. humuli*)	Several, numbers as in previous years.
Arctiidae.	
Buff Ermine (*S. lutea*)	Common.
White Ermine (*S. lubricipeda*)	Slightly more plentiful.
Garden Tiger (*A. caja*)	Common, last year few seen.
Nolidae.	
Short Cloaked (*N. cucullatella*)	Fairly scarce as last year.
Caradrinidae.	
Grey Dagger (*A. psi*)	Fairy common as usual.
Poplar Grey (*A. megacephala*)	,, ,, ,,
Knot Grass (*A. rumicis*)	Scarce, odd specimens.
Marbled Green (*C. muralis*)	More plentiful than before.
Mouse (*A. tragopoginis*)	Uncommon as usual.
Dun bar (*C. trapezina*)	,, ,, ,,
Pale Mottled Willow (*C. clavipalpis*)	Fairly common.
Mottled Rustic (*C. morpheus*)	,, ,,
Rustic (*C. taraxaci*)	Very common.
Treble Lines (*M. trigrammica*)	Very scarce, 1 taken 2nd July.
Straw Underwing (*T. matura*)	Very scarce, 2 taken 31st July.
Angle Shades (*P. meticulosa*)	Reasonably common this year.
Small Angle Shades (*E. lucipara*)	Common as usual.
Dusky Brocade (*Y. remissa*)	Uncommon as in previous year.
Light Arches (*A. lithoxylea*)	Not as plentiful as previous years.
Dark Arches (*A. monoglypha*)	Very common as usual.
Rustic Shoulder-Knot (*A. sordens*)	,, ,, ,,
Common Rustic (*A. secalis*)	,, ,, ,,
Rosy Rustic (*H. micacea*)	Scarce, 1 taken 31st August.
Ear Moth (*H. oculea*)	Common, many vars.
Marbled Minor (*P. strigilis*)	,, ,, ,,
Middle Barred Minor (*P. fasciunculus*)	Very common.
Turnip Moth (*A. segatum*)	Plentiful as usual
Archers Dart (*A. vestigialis*)	Scarce, 2 seen.
Heart and Dart (*A. exclamationis*)	Very common as previous years.
Heart and Club (*A. clavis*)	,, ,, ,, ,,
Flame Shoulder (*O. plecta*)	,, ,, ,, ,,

Setaceous Hebrew Character (*A. c-nigrum*)	Not as common as usual.
Double Square Spot (*A. triangulatum*)	Fairly common.
Ingrailed Clay (*D. festiva*)	Common.
Large Yellow Underwing (*T. pronuba*)	Plentiful this year in particular.
Lesser Yellow Underwing (*T. comes*)	Plentiful as usual.
Lesser Broad Bordered Yellow Underwing (*T. janthina*)	Scarce as usual.
Flame (*A. putris*)	Common.
Gothic (*P. typica*)	Odd specimens as usual.
Large Broad Bordered— Yellow Underwing (*L. fimbriata*)	One 8th July, first one taken in Grimsby.
Centre Barred Sallow (*A. centrago*)	Rare.
The Shark (*C. umbratica*)	Scarce as in previous years.
Smoky Wainscot (*L. impura*)	Plentiful.
Common Wainscot (*L. pallens*)	Common.
Clay Moth (*L. lithargyria*)	,,
Brown-line Bright Eye (*L. conigera*)	,,
Shoulder Striped Wainscot (*L. comma*)	,,
Clouded Drab (*P. incerta*)	Very common, many dark vars.
Powdered Quaker (*O. gracilis*)	Fairly common.
Hebrew Character (*O. gothica*)	Scarce in this area.
Antler Moth (*C. graminis*)	,, ,, ,,
Nutmeg (*H. chenopodii*)	Very common.
Bordered Gothic (*H. saponariae*)	Plentiful.
Bright-line Brown-eye (*D. oleracea*)	Scarce.
Broom Moth (*C. pisi*)	Very common.
Pale Shining Brown (*D. advena*)	One 6th July, first one taken in Grimsby.
Cabbage Moth (*M. brassicae*)	Common.
Dot Moth (*M. persicariae*)	Very common as usual.
Plusiidae.	
The Snout (*H. proboscidalis*)	Fairly common.
The Herald (*S. libatrix*)	Scarce as usual.
Golden Plusia (*P. moneta*)	Fairly common.
Burnished brass (*P. chrysitis*)	,, ,,
Plain Golden Y (*P. iota*)	,, ,,
Silver—Y. (*P. gamma*)	Less than in any previous year.
The Spectacle (*A. tripartita*)	Fairly common.
Lymantriidae.	
Vapour Moth (*O. antiqua*)	Common this year but not previously.
Yellow Tail (*E. chrysorrhoea*)	Fairly plentiful.
Sterrhidae.	
Riband Wave (*S. aversata*)	Common
Small Blood Vein (*S. imitaria*)	,,
Blood Vein (*C. amata*)	,,
Geometridae.	
Common Emerald (*H. strigata*)	,,
Hydriomenidae.	
V. Pug (*C. coronata*)	Not previously seen.
Common Pug (*E. vulgata*)	Common
Lime Speck Pug (*C. centaureata*)	Plentiful as usual.
Bordered Pug (*E. succenturiata*)	Scarce as usual.
The Spinach (*L. mellinata*)	Scarce.
Common Carpet (*E. alternata*)	Common.
Purple Bar (*L. ocellata*)	Oddly.
Barred Yellow (*C. fulvata*)	Common.

Common Marbled Carpet (*D. truncata*)	Very common.
Yellow Shell (*E. bilineata*)	,, ,,
Dark-barred Twin-spot Carpet (*X. ferrugata*)	Scarce.
Red Twin-spot Carpet (*X. spadicearia*)	Scarce.
Silver Ground Carpet (*X. montanata*)	Very common.
Garden Carpet (*X. fluctuata*)	,, ,,
Selidosemidae.	
Brimstone (*O. luteolata*)	Fairly common.
V-Moth (*T. wauaria*)	,, ,,
The Engrailed (*E. bistortata*)	Common.
Mottled Beauty (*C. repandata*)	,,
Waved Umber (*H. abruptaria*)	Fairly common as usual.
Peppered Moth (*B. betularia*)	Very common particularly this year but only a few of the type seen.
Common Wave (*C. exanthemata*)	Common.
Clouded Border (*L. marginata*)	Fairly common.
Swallow Tail Moth (*O. sambucaria*)	Abundant between 12th and 23rd July.
Light Emerald (*C. margaritata*)	Scarce.
Scalloped Hazel (*G. bidentata*)	Fairly plentiful.
Scalloped Oak (*C. elinguaria*)	,, ,,
Polyplocidae.	
Buff Arches (*H. derasa*)	Plentiful as usual.
Sphingidae.	
Elephant Hawk (*D. elpenor*)	Scarce.
Eyed Hawk (*S. ocellatus*)	,,
Lime Hawk (*D. tiliae*)	One.
Poplar Hawk (*L. populi*)	Very common, as usual, eight taken on night of 15th July.
Notodontidae.	
Swallow Prominent (*P. tremula*)	Small numbers.
Pale Prominent (*P. palpina*)	One.
Coxcomb Prominent (*L. capucina*)	Scarce.
Puss Moth (*C. vinula*)	Fairly common.
Poplar Kitten (*C. hermelina*)	Scarce.
Buff Tip (*P. bucephala*)	Plentiful.
Drepanidae.	
Chinese Character (*C. glaucata*)	Scarce as usual.
Lasiocampidae.	
Drinker Moth (*P. potatoria*)	Scarce as usual.
Cossidae.	
Leopard Moth (*Z. pyrina*)	16th July, first one taken in Grimsby.

COLEOPTERA

E. C. Riggall

The past year has been a poor one from the collector's point of view but conditions seem to have favoured the family Ptinidae which comprises beetles usually associated with houses and granaries.

In January Mr. C. G. Else reported a live specimen of the lamellicorne *Dorcus parallelopipedus* in an ash at Barton-on-Humber. In the same month my daughter found a specimen of the Ptinid beetle *Ptinus fur* at Louth. The species frequents dwellings where it damages

woollens and sometimes natural history specimens. It does not confine itself to buildings and is sometimes found in birds' nests. There are records from the north of the county.

During March Mr. G. W. Whatmough sent me a specimen of the small cylindrical clavicorne *Trypodendron domesticum* which was found in his house at Lincoln. I think the beetle entered the dwelling accidentally as the species does not normally attack interior wood-work, preferring the limbs of fallen trees in which it bores circular perpendicular galleries. Adult specimens are difficult to obtain. The beetles can be seen sitting with their heads just projecting from the galleries, but at the least alarm they drop into them.

In the same month Mr. Whatmough also recorded a specimen of the ground beetle *Bembidion harpaloides* from the L.N.E.R. ballast pit at Lincoln. This rather local beetle is a unicolourous reddish brown. It is associated with marshy places. There are very old records from Little Coates and Torksey. The beetle was also recorded from Louth in 1896. It is interesting to find that this local species is still to be found in the county.

In April several specimens of the Ptinid beetle *Ptinus sexpunctatus* were found in moss obtained from Kingerby Wood. In 1953 my daughter Daphne brought me a specimen which had been found clinging to the head of her pony. Presumably this beetle had originated in some food stuff supplied to the animal. There appear to be no other county records. The species is known to share the homes of wild bees. Experiments have proved that it has a high temperature tolerance. It does not seem to be much associated with stored foods but has been found feeding on middlings.

In May Mr. Whatmough recorded one specimen of the golden green plant-eating beetle *Chrysomela aenea* from the ballast pits at Lincoln. This species is usually found on alders and is considered to be very local. It is new to Lincolnshire.

During the meeting at Pelham Wood specimens of the fine large weevil *Otiorrhynchus clavipes* were recorded by my family and Mr. Gooseman. Two of the beetles were found inside rotten wood. The insect is associated with chalky districts. There are old records from Pelham Wood but the species seems very local as I have not met with it elsewhere. The beetle does not seem common enough to do much damage in Britain but its activities include attacks on the buds, shoots, and roots of currant and gooseberry bushes.

On May 24th I visited a lane bordering Scotgrove Wood, and found one specimen of the reddish brown weevil *Anthonomous pomorum.* These beetles hibernate beneath the bark of a fruit tree. In the first warm days of spring they creep out on the boughs, and the female proceeds to perforate a bud and deposit an egg in its interior. One egg is laid in each bud. Development of the bud is only partially checked and the infant larva soon finds itself in the flower, whereupon

it devours the stamens, pistils, and ovary of the young fruit. When full grown the larva fastens the petals together to form a sort of case in which it undergoes its further transformations. In thirty or forty days the perfect beetle hatches out and cuts a hole through the case to freedom. The female ceases to lay eggs as soon as the flower buds have begun to expand. In fine sunshiny weather the laying period is therefore much shortened. Close growing trees are most likely to suffer. Where there is light and air the buds progress similarly. In poor light the upper buds expand first and the lower ones are still progressing. Under these conditions the female beetle gains a longer period to arrange her egg laying.

Six species of longicornes were noted along the edge of the wood, and one of these, *Grammoptera variegata*, is new to the county. Our commonest longicorn is the small *Grammoptera ruficornis*. *Ruficornis* is black clothed with ashy pubescence and has red legs with tarsi and posterior tibiae black. It can be beaten from May blossom or found on flowers in woods and hedges. *Grammoptera variegata* looks rather like a large *ruficornis* but can be identified by reddish marks on the underside of the abdomen. It is described by Fowler as rare. The specimen was found by my daughter June. It seems an interesting addition to the county records.

During this month a junior member Christopher Davis, brought me a fine specimen of the Clavicorn *Necrophorus vespillo* which he had found in Mother Wood, Aby. *Vespillo* can be separated from other yellow banded species in the genus by its strongly curved posterior tibiae. The genus frequent large carcases and bury the bodies of small animals and birds. The larva feeds upon the buried carrion.

At the Pickworth meeting in June Mr. T. Kirk found an exceptionally fine specimen of the longicorn *Clytus arietis* known as the Wasp Beetle because its general appearance resembles the latter insect. This wood borer does not attack living trees. It is often abundant in flowers. Mr. Kirk also found male and female specimens of another longicorn *Anaclyptus mysticus*. There are old records of this species from the south of the county where it has been taken at Stapleford in 1898 and Court Leys in 1900. This rather local species appears to be improving its foothold as it is now well established in Scotgrove Wood and at Skellingthorpe.

At the July meeting at Fillingham I found the larvae of *Dorcus parallelopipedus* and Mr. F. L. Kirk exhibited a live adult specimen. By sweeping on the south side of the lake I obtained numbers of the small clavicorn beetle *Kateretes rufilabris*. This species has been recorded for the county but I had not met with it previously.

On July 24th there was a migration swarm of beetles on the sea front at Sutton-on-Sea. The weather was fine and warm with a gentle westerly wind. Part of the swarm remained on the wing for a considerable time, but there were so many beetles creeping about on

the promenade and sea defences that it was difficult to avoid treading on them. The various species evidently preferred woodwork to concrete and the wooden seats were literally incrusted with beetles. A small bird was hopping about picking up a beetle here and there with the careful choice of a lady going over a box of chocolates.

The swarm included specimens of the water beetle *Agabus bipustulatus*. This species belongs to the suborder Hydradephaga, Beetles in this order have a keeled undersurface and hind legs adapted for swimming. During flight water beetles sometimes make mistakes, descending upon glass, or the polished surface of a car, supposing these objects to be water. They do not often alight upon barren surfaces which do not even resemble water. Having settled upon the promenade specimens of *Agabus bipustulatus* made no immediate attempt to resume flight. I informed Professor Balfour-Browne that these water beetles seemed content to remain in a dangerous and unsuitable environment, and asked if this could be attributed to an inability to rise into the air from a dry, level surface. He commented: "Agabus is a very ready flyer. The Agabus often flies off my mackintosh sheet when I am collecting, but usually when the sun is shining, and Miss Jackson who experiments with water beetles finds that it is about the readiest species to fly out of the large enamelled pudding dish she uses to test them." I can only assume that the specimens of *Agabus bipustulatus* remained on the promenade because they were too exhausted to resume flight. The swarm also contained examples of the water beetle *Hydrobius fuscipes*. This beetle belongs to the suborder Palpicornia. *Fuscipes* is not such a highly developed water beetle. It has a flat underside and hind legs which can be used either for crawling or swimming. Specimens of *fuscipes* were able to creep about on the concrete but I did not see any take to the air again. My daughter June found a specimen of the longicorn *Phymatodes testaceous*. This was the first time we had seen a longicorn associating with a migration swarm. *Testaceus* was very active and hard to capture. The species has been bred out of chestnut logs and is associated with oak flitches. It is new to the county. The swarm also contained specimens of the brachelytron *Bledius bicornis*. This beetle is fossorial, digging galleries in clayey and sandy places. Male beetles in the genus are usually distinguished by two horns mounted on the head and projecting forward. These beetles pass all stages of their existence under sand and have been observed to remain in their burrows when covered by the tide. *Bicornis* is described as local and apparently scarce but has been recorded from Cleethorpes and Mablethorpe. We found one specimen of the lady-bird *Coccinella quadripunctata*. This beetle is new to Lincolnshire. It was first recorded in England in 1942 when Claude Morley and the late Dr. K. G. Blair found specimens at Blythborough Woods, in Suffolk. It was recorded from Tubney, Oxfordshire in 1944, and found by myself in Bacton district, East Norfolk in 1951. The beetle seems to

have obtained a foothold and is increasing its range. It is an interesting addition to the county records. The swarm also contained a single specimen of the Serricorne, *Necrobia rufipes*. This species frequents dry skins, and dead carcases, has been found in liver meal, and even collected from an Egyptian mummy. Thornley and Wallace record the beetle from Cadney in 1898. The swarm contained many specimens of a ground beetle which the British Museum identified as *Ophonus seladon*. The species appears new to the county. The genus is a difficult one. Some of the species can be determined by dissection of male specimens, but females are often unidentifiable. There were also several specimens of the ground beetle *Amara bifrons*. This beetle seems normally to be very scarce in the county. Thornley and Wallace have one record from Bottesford in 1900, and I found a single specimen at Saltfleet in 1944.

In July I found a single example of the ground beetle *Feronia macra* at the foot of the escarpment at Alkborough. According to Rye this beetle is found in cracks of tanks and under stones near water. In the years 1906 to 1907 there are county records of this beetle over a wide area both on the coast and inland. Latterly for no apparent reason it has disappeared from its old haunts and become almost extinct in Lincolnshire.

In August I found a specimen of the fossorial ground beetle *Clivinia collaris* at Barton-on-Humber. The species has broad, dentate anterior tibiae adapted for digging in sandy earth. The genus frequents damp places on the banks of streams or under stones in galleries or burrows. There are very old records of the beetle from both halves of the county, but as this is the first time I have met with a specimen the species would appear to be becoming scarce in Lincolnshire.

In September Mr. Else reported an infestation of the Ptinid beetle *Niptus hololeuchus* in a house at Barton-on-Humber. About the same time the species turned up in numbers in a Louth flat. As the flat is adjacent to a Riding School it seems possible that beetles in the latter area originated in foodstuffs brought for the horses. At one time the species seems to have been rather rare but it has gradually spread all over the county. It will feed on middlings or wholemeal flour.

On the 28th of the month there was a swarm of beetles on the new sea wall at Ingoldmells, and I was able to collect another specimen of *Bembidion harpaloides*. It is certain that many species which accompany migration swarms to our coast are unable to establish themselves, but *harpaloides* is a beetle which needs marshy places and might well succeed in colonising the area behind the sea wall.

At the Field Meeting at Rimac several members found specimens of the Tansy Beetle, *Galeruca tanaceti*. This plant-eater is by no means

confined to *Tanacetum vulgare*. At Rimac I watched a female lay eggs on a blade of grass. Fifty years ago this beetle appears to have been fairly common in parts of Lincolnshire and has been recorded from Linwood, Louth, Goulceby, and other areas. When I began collecting in 1924 I used to find a few specimens near the pullover in the sandhills north of Rimac, but never saw the beetle elsewhere. From being fairly common this species seems to have become local and dwindled to a precarious foothold in the county. I was glad to find a little colony established at Rimac.

On October 1st Sutton was again visited by a migration swarm. I was unable to do any extensive collecting but obtained one specimen of the weevil *Myelophilus piniperda*. This beetle is associated with pines. It seems reasonable to suppose that beetles which require pine trees for their economy have not risen up from anywhere in the neighbourhood of Sutton.

In November Miss Gibbons found some specimens of the clavicorn *Necrophorus humator* which had trapped themselves in jars used to entice wasps. The jars were more than half full of a solid mass of dead insects which had a strong carrion smell. *Humator* is one of the Burying Beetles, and was probably attracted to Holton-le-Moor by numbers of dead rabbits killed by myxomatosis. The beetle is a very strong flyer. An engineer engaged upon maintenance of lighthouses sent me specimens of this beetle which he had found on a remote rock known as Sule Skerry and situated thirty miles north of Scotland and thirty west of the Orkneys. As the species needs carrion for its economy it seems probable that it was attracted to this remote rocky islet by the presence of dead seabirds killed through dashing against the lighthouse lantern. It seems reasonable to presume that *Necrophorus humator* could not have existed on Sule Skerry before there was a lighthouse there to provide a sufficiency of dead birds, and that specimens now found on this rock have migrated from the mainland of Scotland or the Orkneys. This careful migration of a single species to a tiny rock thirty miles out to sea seems an example of instinct in strange contrast to the haphazard impulse which causes swarms of assorted beetles to descend upon our Lincolnshire coast where many encounter conditions unsuited to their economy.

ARACHNOLOGY

G. W. Whatmough, m.p.s.

The moist conditions prevailing during most of 1954 have been favourable to arachnid life if not to the field pursuit of arachnology, and generally the season has been above average. It is a good indication of the healthy state of the Union that more records are made in each succeeding year, largely due to the interest, keenness and kindness of

members. Not only have I received specimens from many parts of the county, but also from members on holiday from Skye to the south coast. Overseas spiders have come in from France, Germany, Switzerland and Italy and several tropical specimens have been found in fruit, chiefly bananas.

One spider which was brought from Konstanz (S. Germany) proved to be *Araneus sclopetarius* Clerck, a species which used to be found in Lincolnshire fifty or sixty years ago, and might still be with us, possibly in the extreme south of the county near lakes or streams.

During the year a regular survey of the arachnid fauna of the L.N.E.R. Ballast Pits (Coulson Road), under two miles from the main shopping centre of Lincoln, has been carried out. One of the first visits, on a bleak and wintry day, yielded a new species to the county, *Oreonetides abnormis* (Bl.). It was found under a piece of wood at the foot of the railway embankment. Another early discovery *Gnathonarium dentatum* (Wider), was commoner fifty years ago but is rarely found today. *Clubiona* spp. were plentiful in early summer, the most interesting member of this family taken being *C. stagnatalis* Kulcz. The tiny spider *Pocadicnemis pumila* (Bl.) was found at intervals during the year as were immature *Hahnia* spp. but these could not be identified since adult specimens were never taken. A comprehensive list of the spiders and harvestmen of this locality will be given later.

In April Mr. M. P. Gooseman took a male *Pisaura mirabilis* (Clerck) near Limber. Although common in the southern half of the county it becomes progressively scarcer as the Humber is approached and is rarely seen in Yorkshire. When the Union visited Pelham's Pillar Wood in May the best captures were *Thyreosthenius parasiticus* (Westr.) and *Diplocephalus latifrons* (O.P.—Cambr.).

Mr. A. D. Townsend sent me the remains of a spider which he had taken from a hedge-sparrow at Gibraltar Point. It was a male *Ciniflo* but the palps were too damaged to make exact determination possible. In June several new species to the Nature Reserve were taken, viz:—

Clubiona neglecta O.P.—Cambr. One male taken in the marshy area.

Heliophanus flavipes C. L. Koch. Both sexes taken on the dunes.

Lycosa tarsalis Thor. An attractive wolf-spider seen running in the sun on the dunes.

Xerolycosa miniata (C. L. Koch). Both sexes running on sandy patches. Protective colouration makes this spider barely distinguishable from the more plentiful *Arctosa perita*. This is the first time it has been taken since H. Wallis Kew recorded it in 1886.

Pachygnatha degeeri Sund. Although plentiful on the coast from Skegness to Humberstone this species has not been taken at Gibraltar Point before.

Singa pygmaea (Sund.). A rare orb-spinner and a notable addition to the fauna of the Reserve; has only been taken once in recent years. This specimen was taken in tall grass by the road.

Cornicularia unicornis (O.P.—Cambr.). One female was found at grass roots.

Gongylidium rufipes (Sund.). A frequent aeronaut found in low vegetation on the dunes.

The attractive spider *Theridion bimaculatum* (Linn.) has been found in several new localities, in fact I have never seen as many as I have this summer. The President was fortunate enough to take *Clubiona brevipes* Bl. and *Xysticus lanio* C. L. Koch in Scotgrove Wood during May. Neither had been recorded in the county for over fifty years.

A pair of spiders was taken at Hartsholme in June closely resembling the common orb-spinner of autumn *Meta segmentata* (Clerck). They proved to be *Meta segmentata mengei* (Bl.), which now appears to have achieved specific rank. Until recently the two were lumped together by British arachnologists, some regarding the spring maturing spider as a sub-species of the more abundant autumn species. Now that the small differences have been recognised and shown to be constant, it is very likely that the new species will be found in spring and early summer in all parts of the county.

The L.N.U. meeting at Holywell was the most productive of the year, a number of rare and local arachnids being taken. *Araneus triguttatus* (Fabr.) fell into the President's collecting umbrella while he was beating low branches in the woods. The scarce and beautiful Thomisid *Misumena vatia* (Clerck) was seen running in the grass and made valiant efforts to evade capture but with the help of Miss D. Riggall it was eventually bottled! *Dysdera erythrina* (Walck.), *Amaurobius atropos* (Walck.) and the harvestman *Homalenotus quadri dentatus* Cuv. were all found under pieces of limestone near the farm buildings within a few yards of the bus which had brought the members from Lincoln. The harvestman is particularly interesting not only because it is another new record for Lincolnshire but also because this is probably the creature's present northern limit. Another new harvestman *Oligolophus meadci* Cambr. was found later in the year near Doddington Road, Lincoln in a wooded area which has been regularly worked for six years. To be able to report the addition of two new harvestmen to the county records in one year is rather remarkable when we consider the small number of British species.

The so-called "common" Labyrinth Spider, *Agelena labyrinthica* (Clerck) has always been hard to find in the county but it was taken

in a field at Carlby and in large numbers on gorse bushes by the side of the drain which runs close to the L.N.E.R. Ballast Pits, Lincoln.

Fillingham field meeting was rather disappointing since no rare species were encountered or new records made; however, two false scorpions were taken on a dead tree trunk in the park.

Mr. H. M. Small sent along a specimen of *Oedothorax retusus* (Westr.) bearing several bright red mite larvae. It has been said that the mites simply use spiders and, more commonly, harvestmen as a means of transport. It is fairly certain that little harm is caused to the host unless the number of passengers is excessive. The six-legged larvae probably leave their host as soon as they moult and assume the adult eight-legged form.

The sand dunes south of Skegness were visited in August when a female *Oxyptila praticola* (C. L. Koch) was taken. *Tapinopa longidens* (Wid.) which seems to be increasing in numbers locally, and the harvestman *Opilio saxatilis* (C. L. Koch) were also found.

In September one of the largest specimens of *Araneus diadematus* Clerck I have ever seen was found in furs in a Lincoln shop where it was wrongly suspected of damaging the merchandise. It was 18 mm. in length and abnormally light in colour. Similar pale and well-fed specimens are common in greenhouses. Later in September a pair of *Meta merianæ* Scop. was found in a dark crevice in a piece of old machinery left in undergrowth near Doddington Road, Lincoln.

The field meeting at Canwick in October produced plenty of specimens but the only ones worthy of note were *Labulla thoracica* (Wid.) which was found under loose bark and *Cyclosa conica* (Pallas) which was taken in numbers by boys of the City School (Lincoln) Natural History Club. The orb webs of this uncommon spider were plentiful on holly and other bushes by the drive leading to the Hall. Later in the month *Centromerus sylvaticus* (Bl.) and *Gonatium rubens* (Bl.) were found in the Lincoln area.

In November two harvestmen, *Oligolophus agrestis* (Meade) and *O. tridens* (C. L. Koch), were taken at a sugaring site at Laughton by Mr. B. C. James. Harvestmen have been noted before in such surroundings and are thought to visit sugar patches to feed on the attracted lepidoptera and other insects. Animals of this order are not particularly carbohydrate eaters though they will accept bread crumbs when other food is withheld.

Mr. A. E. Smith sent in a specimen of the large harvestman *Odiellus spinosus* (Bosc.) which he took in his garden in Alford. This record is particularly interesting as it shows that this creature is gradually extending northwards. Mr. G. N. Holland brought an even larger specimen of the same species to the annual reports meeting. He had found it in Sleaford. Until this year the only county record was a solitary example taken in the Grantham area.

ORNITHOLOGY

R. K. Cornwallis, b.a., m.b.o.u. and A. E. Smith, m.a.

From 1949 *to* 1953 *records from the Lincolnshire Naturalists' Trust's Gibraltar Point Bird Observatory have been published in a separate report. It has now been decided to include the Observatory records in the L.N.U. Transactions and thus to produce a comprehensive county bird report. Reprints of this will be bound separately and will be available, price* 2/6, *from R. K. Cornwallis, Bleasby Grange, Legsby, Market Rasen, or from the Secretary of the L.N.U.*

The order adopted in the following List of birds recorded in Lincolnshire in 1954 is that of the *B.O.U. Checklist of the Birds of Great Britain*, 1952. Square brackets indicate that some doubt exists about whether a bird was truly wild or about its correct identification.

For the first time for forty years a recent List of Lincolnshire birds is available as a standard of comparison. (*The Birds of Lincolnshire*, L.N.U. Brochure No. 2). The purpose of the following report is therefore to amplify and, where necessary, to correct that List. All records received are, however, filed and preserved for future reference.

Many observations of birds in the Lincolnshire Fens are included in the report of the Cambridge Bird Club (obtainable, price 4/-, from A. E. Vine, Station House, Haverhill, Suffolk). The more important of these are included below. The report also includes an account of birds observed in the Wash area, Aug. 21st to Sept. 2nd—a period during which the chief drift movement of the autumn took place. There are also interesting reports of waders, terns and gulls flying inland along the Fenland rivers from the Wash. Where a species in this report is also mentioned for Lincolnshire in the Cambridge Bird Club Report this is indicated by the letters C.B.C.

The pattern of migrational movements as observed at Gibraltar Point is discussed in the section " Weather and Migration " and the numbers observed of the commoner migrants are set out in a table following that section. Occurrences of less common species are recorded in the classified list. The letters G.P. in this list indicate that a bird was recorded at the Gibraltar Point Bird Observatory. If these letters are italicised it indicates that fuller information is contained either in the section on " Weather and Migration " or in the table of commoner migrants.

A new and valuable development has been the regular watching of migrants, especially waders, at Lincoln Sewage Farm, Canwick near Lincoln. This has been carried out chiefly by A. D. Townsend, C. T. Beverley and E. I. Abell with the kind permission of Mr. Codling, the manager of the Sewage Farm. A table of the waders observed is

published, and it will be seen that a surprising variety of species more usually associated with the coast has been recorded. The letters L.S.F. in the classified list indicate that full details are shown in the table.

In addition to those species included in the List the following occurred in the county in 1954 (breeding species in italics; species presumed to have bred but no actual evidence of this followed by a ?).

Little Grebe, Gannet, *Mute Swan*, *Sparrow Hawk*, *Partridge*, *Red-legged Partridge*, *Pheasant*, *Water Rail*?, *Moorhen*, *Coot*, *Snipe*, Jack Snipe, Great Black-backed Gull, Herring Gull, Common Gull, *Stock Dove*, *Barn Owl*, *Little Owl*, *Tawny Owl*, *Nightjar*, *Swift* (*G.P.*), *Kingfisher*, *Green Woodpecker*, *Great Spotted Woodpecker*, *House Martin* (*G.P.*), *Sand Martin* (*G.P.*), *Rook*, *Jackdaw*, *Magpie*, *Great Tit*, *Blue Tit*, *Coal Tit*, *Marsh Tit*?, *Long-tailed Tit*, *Wren* (*G.P.*), *Mistle Thrush*, *Nightingale*, *Robin* (*G.P.*), *Blackcap* (*G.P.*), *Whitethroat* (*G.P.*), *Lesser Whitethroat* (*G.P.*), *Willow Warbler* (*G.P.*), *Goldcrest* (*G.P.*), *Spotted Flycatcher* (*G.P.*), *Dunnock* (*G.P.*), *Meadow Pipit* (*G.P.*), *Pied*/White *Wagtail*, *Greenfinch* (*G.P.*), *Goldfinch* (*G.P.*), *Linnet* (*G.P.*), *Bullfinch*, *Yellowhammer*, *Corn Bunting*, Snow Bunting, *House Sparrow*.

NOTE: (*G.P.*) means that the species is in the Gibraltar Point tables.

GIBRALTAR POINT BIRD OBSERVATORY.

General.

In 1954 the Observatory was manned during the second half of April, in mid-May and early June and, with three short breaks, from the beginning of August until the first week of November. The daily recording of migration and weather conditions and the trapping, examination and ringing of migrants were the principal features of the programme. In addition, an investigation (organised by Mr. R. A. O. Hickling) of wader movements at high tide periods was begun. Ecto-parasites were collected from trapped birds and identified by Mr. G. B. Thompson. Mr. Harold Hems began taking a colour film of the Skegness and Gibraltar Point Nature Reserves in which breeding and migratory birds and the activities of the Bird Observatory will be shown.

The number of species seen in the reserves during the year was about 140. This total included about 25 breeding species. More than 1300 birds of 52 species were ringed at the Observatory. Recoveries of ringed birds are given elsewhere in the County Bird Report.

Records made at the Observatory were again supplied to various national and local enquiries organised by scientific journals, societies and individuals. These included the wildfowl counts organised by the Wildfowl Enquiry Committee and, latterly, by the Wildfowl Trust; the enquiries into Skylark, Chaffinch, Starling and Meadow Pipit migrations organised by the British Empire Naturalists' Association; and the survey of the unusual passage of Black Terns in autumn, 1954,

organised by the Editors of *British Birds*. Information of various kinds was supplied to the Cambridge Bird Club and to various individual enquirers. Observatory records were used in a paper entitled *The Pattern of Migration in* 1953 *at the East Coast Bird Observatories* written by R. K. Cornwallis and published in *British Birds* Vol. XLVII, pp. 423-431 (December, 1954). The Observatory was represented by its Secretaries at the annual conference of the British Bird Observatories Committee at Oxford on January 1st and 2nd, 1955.

The Observatory was again fortunate in receiving assistance from many people, especially from members of the local committee. Mr. F. S. W. Major supplied tide tables throughout the year and these were of great value to the Observatory. An appreciation of the services of the late F. R. Bean has been given in the annual report of the Lincolnshire Naturalists' Trust for 1954. Mr. K. T. Green has kindly undertaken much of the local work for which Mr. Bean was responsible.

Migration and Weather Conditions at Gibraltar Point in 1954.

The Observatory was manned on occasional days until mid-April. The most notable migration observed occurred on March 21st when, with a moderate south-westerly wind, a south-westerly movement of at least 2,000 Chaffinches took place throughout the day. Few other birds were travelling.

During the second half of April winds were mainly between north and north-east and there was very little migration of any kind. Swallows were not recorded until 26th and during the whole period only three Willow Warblers were seen.

When the Observatory was manned during the second and third weeks of May, winds were mainly between north and west and the weather was cool and unsettled. Migrants were more in evidence but occurred in very small numbers only.

In the second week of June, when winds were mainly south-westerly, there was some interesting movement. There was passage of Swifts, Swallows, House and Sand Martins from 7th to 10th, Swifts being especially numerous (*c.* 200) on 7th. Turtle Doves were moving each day from 7th to 11th in numbers between 20 and 50. On 10th there was south-westerly movement of more than 100 Lapwings in small parties which appeared to consist mainly of young birds. A Jay was trapped on 11th, the first record of the species made by the Observatory. A flock of *c.* 200 young Starlings had already arrived on the salt-marsh on 7th.

In August winds were almost always between south and west until 18th and weather was unsettled with much rain. Apart from large numbers of waders and terns at high tides, there was little movement until 7th when a small rush of *c.* 50 Willow Warblers and fewer Whitethroats occurred. Willow Warblers were again more numerous than

usual on 11th and 14th. Between 8th and 10th there were more Cuckoos than at any other period during the last three years. Of eight seen on 10th two were adults. On 19th there was an influx of *c.* 50 Willow Warblers and a few other species, and five Black Terns were seen. On 19th anticyclonic conditions began to develop over Scandinavia and the northern North Sea. Winds veered north-westerly at Gibraltar Point on 19th and then to the north-east on 21st and 22nd. These conditions gave rise to one of the most interesting migratory movements of the year. On 20th 'drift' migration had developed and there was a considerable variety of small passerines, including a Barred Warbler, and a few Pied Flycatchers and Redstarts. On 21st about 11.00 hours there was a sudden influx of Pied Flycatchers, *c.* 25 of which were present in the trapping hollow in the afternoon. Several Curlew Sandpipers and Little Stints arrived on the marsh at the same time. There was considerable movement again on 22nd, mainly of Willow Warblers, Whitethroats, Garden Warblers and Pied Flycatchers. At least 30 of the latter species were seen at Sykes' Farm in the evening and it was estimated that there were at least 100 in the Reserves. There was also a Little Gull on 22nd. There was much passerine movement again on 23rd, when winds were northerly, but it slackened on 24th. Wrynecks occurred on 26th and 31st. There was a great influx of at least 1,000 Great Black-backed Gulls during the morning of 24th. On 28th, when winds had returned to south-west, there was a heavy movement of more than 10,000 Swallows and on 29th of *c.* 5,000. On 31st there was a big influx of Wheatears, *c.* 80 being seen in the southern part of the Gibraltar Point Reserve.

Throughout September winds were predominantly between south and west and migration was almost entirely along the coast to the south and south-west. There was a trickle of migrants of various species during the first four days and there was a large influx of more than 200 Wheatears on 3rd. There was little movement from 5th to 10th, there being heavy rain and high winds on 8th, 9th and 10th. On 11th, with an improvement in the weather, there began the biggest movement of Swallows ever recorded by the Observatory. On this and on the following three days at least 60,000 moved south-westwards, passage continuing from dawn to dusk each day. Several hundred Meadow Pipits were also migrating on 11th, 12th and 13th. Swallow passage slackened on 15th, but House Martins were moving in fair numbers from 14th to 16th. During all this period winds were between south and west and generally moderate to fresh. There was some movement of Linnets and Goldfinches on 17th and 18th. Skylark movement in 1954 was on a much smaller scale than usual and the 150 (app.) seen on 23rd was the highest daily number of the autumn. There was a small influx of Reed Buntings on 23rd and a big passage of *c.* 3,000 Swallows on 29th.

South-westerly winds continued to predominate throughout October and there was little immigration from the east until the last

few days of the month. Some of the typical October ' drift ' migrants, Song Thrushes and Goldcrests for example, were very scarce. There was small-scale movement of Swallows, Meadow Pipits, finches and other species on the first three days. The Observatory was not manned from 5th to 9th. On the morning of 10th there was a considerable passage of Greenfinches, Goldfinches, Linnets, House and Tree Sparrows. Weather from 11th to 15th was generally very unsettled with strong winds and much rain at times and there was very little migration. The Observatory was not manned again from 17th to 23rd. Apart from small numbers of Wrens, there was little passage from 24th to 26th, but Redwings, Blackbirds and Song Thrushes were present in the Reserves during the period. With fresh south-westerly winds and fine weather on 27th and 28th there was much migration. On 27th thousands of Starlings and hundreds of Redwings and some Fieldfares flew in from the east. On 28th *c.* 300 Woodpigeons arrived from the same direction and large numbers of Linnets and some Goldfinches, Bramblings, Redwings and Starlings were moving south-west. There was also a considerable increase in the numbers of Blackbirds in the reserve. Gale force winds on 29th restricted migration, but on 30th south-westerly movement of finches was resumed and there were some Skylarks also. About 300 Woodpigeons and hundreds of Starlings came in from the east. On 31st migration was slight.

Starling immigration continued on November 1st but there was little other movement. In the evening the wind became north-easterly for a time. On 2nd Fieldfares were heard coming in from the east before dawn and there were many Blackbirds, Chaffinches and Bramblings in the reserve at first light. Starling immigration continued all day and there was south-westerly movement of finches. Four Woodcock were flushed from the dunes in the afternoon. On 3rd, when winds were westerly, migration followed the same pattern and small numbers of Lapwings also flew from east to west. On 4th migration of most species slackened considerably, but Lapwing immigration increased, *c.* 1,500 being seen during the day. Four Woodcock were seen. There was no visible movement on 5th but winds backed easterly during the night of 5th—6th and there was large-scale immigration of Starlings, Blackbirds and Redwings with smaller numbers of Chaffinches and Bramblings. The immigration of Blackbirds and finches—and hundreds of Lapwings—continued during the morning of 6th in spite of heavy rain. By 10.00 hours it was estimated that there were at least 2,000 Blackbirds in the Gibraltar Point Reserve and large numbers were seen in hedges several miles inland throughout the day. By the morning of 7th immigration had stopped and the numbers of Blackbirds in the Reserves—although still several hundreds —were dwindling rapidly. The Observatory was not continuously manned after November 7th, but occasional observations were made up to the end of the year. Snow Buntings were present from mid-November but only in small numbers. Three Shore Larks were seen

in late December. Hooded Crows did not arrive until the end of the first week in November and not more than 20 were present in the Reserves at the end of the year. Wigeon increased to a late December total of *c.* 2,000. Pink-footed Geese records will be found in the species list.

Ectoparasites.

Ectoparasites collected from birds caught at Gibraltar Point have kindly been examined by Mr. Gordon B. Thompson. It is not thought that a list of these is of sufficiently general interest to warrant publication here but is available to those interested at the Observatory.

Bird-flies from the Cuckoo are perhaps worth special mention. It has been suggested that the lice of the Cuckoo, which are specific to this species, may be transferred by bird-flies since there is no contact between individual Cuckoos except in copulation. One of the bird-flies taken on Aug. 24th from a juvenile Cuckoo had a louse, *Bruelia* sp., attached to its abdomen. This particular genus of lice does not occur on Cuckoos. An adult Cuckoo examined on Aug. 10th was parasitised by two species of true Cuckoo lice.

Numbers of Some of the Commoner Migrants at Gibraltar Point in Autumn, 1954.

The following tables show the numbers of some of the commoner migrants at Gibraltar Point during the autumn of 1954. The figures given are the numbers or estimates of numbers of birds seen in the Reserves or flying overhead. Except possibly in the case of some Skylarks, Whitethroats, Meadow Pipits, Reed Buntings and Linnets, mainly in August, it is likely that all the birds were on migration, although in some instances they may have been staying for varying periods in the Reserves.

Where a species appears in one or two months but not in another it may be assumed that there were no records of it in the latter month.

The symbol M is used for 1,000. * indicates that the species was present but that its numbers were not counted or estimated. A dash indicates that it was absent on that day.

SOME AUTUMN MIGRANTS AT GIBRALTAR POINT, 1954.

August																															
Days of the month	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
Swift	–	–	–	3	100	50	100	50	4	100s	100s	200	100	50	–	–	20	100	100s	100s	–	10	100	100	1	2	–	10	10	4	–
Skylark	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8	6	4	3	*	*	*	2
Swallow	20	5	–	50	50	100	100	100	20	10	20	100	500	500	100	250	200	200	100s	100s	100s	100s	100s	570	50	100	2½M	10M	5M	2M	200
House Martin	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	2	2	1	18	3	–	–	–
Sand Martin	50	200	–	–	–	–	100	200	50	10	–	–	–	–	–	–	20	20	50	5	–	2	–	1	–	1	22	1	–	–	2
Wren	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	1	–	–	–	1	1	–	1	–	–	–	–	–
Wheatear	–	–	–	2	4	1	1	2	–	3	5	3	5	6	10	2	10	6	3	20	10	10	10	20	20	10	25	2	5	3	80
Whinchat	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	1	–	–	1	–	–	–	2	2	1	1	–	–	–	2
Redstart	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	3	2	1	2	3	1	2	3	1	2	3	–
Robin	–	–	–	1	–	–	–	–	1	–	2	–	–	–	–	–	–	–	–	–	–	1	–	1	1	2	–	–	–	1	1
Sedge Warbler	–	–	–	–	–	–	–	–	–	–	1	1	–	–	1	1	–	–	1	–	–	–	–	–	1	–	–	–	–	–	2
Garden Warbler	–	–	–	–	–	–	–	2	–	–	–	1	5	2	–	–	–	–	1	5	10	10	8	3	1	2	–	–	–	–	–
Whitethroat	20	2	–	8	20	10	20	10	8	8	10	8	5	20	20	10	5	3	5	20	20	20	20	20	10	10	10	10	5	15	20
Lesser Whitethroat	–	–	–	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	1	–	–	–	1	–	–	4	1	–	–	–
Willow Warbler	1	–	–	3	20	1	50	20	8	10	25	10	3	30	10	3	1	–	50	5	–	40	50	10	20	15	6	30	2	2	5
Spotted Flycatcher	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	2	3	–	–	1	2	–	2	2	1	–	–	–
Pied Flycatcher	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6	25	100+	10	50	5	15	3	1	1	2	1
Meadow Pipit	–	–	–	–	100	100	100	–	–	–	–	–	–	50	30	100	100	20	10	20	20	20	10	20	6	30	5	10	30	50	50
Pied Wagtail	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–
Yellow Wagtail	2	–	–	–	–	–	–	–	2	1	8	5	2	20	10	–	–	1	–	20	10	2	10	5	4	20	3	6	10	10	13
Starling	–	–	–	–	2	–	2	2	–	–	12	–	6	4	–	100	500	1M	500	–	–	20	3	4	–	–	1	10	–	–	–
Greenfinch	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–
Goldfinch	–	–	–	–	–	–	–	–	–	7	–	–	2	–	10	–	–	8	–	–	–	7	–	3	–	25	2	–	–	–	25
Linnet	10	*	*	*	*	10	50	20	3	*	*	*	*	*	*	*	*	*	*	*	–	–	–	5	5	21	7	10	10	5	5
Chaffinch	–	–	–	–	–	–	–	2	–	–	1	–	–	–	–	–	–	–	–	–	–	4	2	2	1	2	1	–	3	–	1
Reed Bunting	–	–	–	1	2	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1

September

Days of the month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Swift	1	5	–	6	2	2	2	–	9	2	–	3	4	–	–	–	–	–				–	–	–	5	3	–	–	1	–
Skylark	3	3	5	12	3	2	7	4	3	*	*	*	–	–	–	–	6	12				–	150	–	–	*	*	*	*	*
Swallow	150	500	2M	1M	2M	500	200	500	500	500	25M	30M	10M	6M	2M	1200	100	10				300	300	–	–	*	–	150	3M	200
House Martin	–	1	20	20	7	12	8	–	1	2	–	3	–	250	250	500	100	–				–	22	–	–	*	–	–	16	120
Sand Martin	–	5	50	50	15	–	–	1	1	1	–	–	*	*	*	60	*	*				–	–	–	–	–	–	–	–	–
Wren	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–				–	1	–	–	2	2	1	4	2
Wheatear	10	10	200	250	20	1	5	4	8	5	6	4	6	6	6	6	6	6				2	3	–	–	3	2	2	1	–
Redstart	3	3	–	–	–	–	–	–	4	–	–	–	3	1	–	1	1	–				–	–	–	–	–	–	1	–	–
Robin	–	–	–	1	–	–	1	1	1	–	–	1	1	1	–	–	1	1				–	–	–	–	–	–	3	–	–
Sedge Warbler	–	–	1	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–				–	–	–	–	–	–	–	–	–
Blackcap	–	–	–	–	–	–	–	–	1	–	–	4	–	2	–	–	–	–				–	–	–	–	1	–	1	1	–
Garden Warbler	2	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–				–	–	–	–	–	–	–	–	–
Whitethroat	12	12	5	30	6	5	3	2	5	5	–	30	11	14	*	*	*	*				*	*	–	–	–	1	3	–	–
Lesser Whitethroat	1	–	1	–	1	–	–	–	3	–	–	1	–	–	–	–	1	–				–	–	–	–	–	–	–	–	–
Willow Warbler	12	6	10	15	15	5	3	2	5	2	–	10	1	*	*	*	*	*				–	–	–	–	–	–	–	–	–
Chiffchaff	–	2	–	–	–	–	–	–	–	–	–	1	4	2	*	*	*	*				–	–	–	–	–	1	–	–	–
Goldcrest	–	–	–	–	1	–	–	–	1	–	–	–	–	1	–	–	–	1				–	–	–	–	2	–	–	1	3
Spotted Flycatcher	–	–	–	1	2	–	1	–	–	–	–	–	–	1	–	–	1	–				–	–	–	–	–	–	–	–	1
Pied Flycatcher	1	–	–	–	1	4	1	–	–	–	–	–	–	–	–	–	–	–				–	–	–	–	–	–	1	–	–
Meadow Pipit	20	20	100	100	12	12	20	20	100	50	100s	500	500	100	*	*	*	*				–	50	–	–	*	*	*	*	–
Pied Wagtail	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–				–	–	–	–	1	2	–	5	–
Yellow Wagtail	18	30	–	–	1	1	1	–	–	–	–	–	–	–	–	1	–	–				–	–	–	–	–	–	–	–	–
Starling	–	–	2	20	5	–	14	20	15	1	–	–	–	–	–	–	100	12				–	–	–	–	–	–	–	20	–
Greenfinch	–	–	–	50	20	12	25	5	12	12	–	–	–	–	–	–	–	–				–	–	–	–	–	–	–	–	–
Goldfinch	–	–	–	–	–	–	20	–	–	–	–	–	–	–	–	–	50	50				–	1	–	–	6	10	*	*	6
Linnet	–	–	40	30	7	20	15	6	12	20	–	–	–	–	–	–	500	500				18	–	–	–	–	–	–	*	12
Chaffinch	8	20	–	12	–	1	6	12	12	2	–	–	–	–	–	–	–	–				1	–	–	–	20	–	2	1	2
Reed Bunting	–	–	–	–	–	–	–	2	–	–	–	–	–	1	–	–	–	–				–	20	–	–	3	–	–	2	–

OBSERVATORY NOT MANNED

October

Days of the month	1	2	3	4	5 to 9	10	11	12	13	14	15	16	17 to 23	24	25	26	27	28	29	30	31
Swallow	200	150	50	75		10	5	–	5	2	20	80		2	–	–	–	–	2	6	–
Skylark	*	*	*	–		*	50	50	50	*	*	*		–	*	–	*	100	100	100	*
House Martin	–	4	–	2		1	–	–	–	–	3	–		10	–	–	–	–	–	–	–
Wren	5	6	3	6		4	1	–	–	–	1	–		8	20	10	5	3	5	3	5
Wheatear	1	1	–	–		1	–	–	–	–	–	–		–	–	–	–	–	–	–	–
Redstart	1	1	1	–		–	–	–	–	–	–	–		–	–	–	–	–	–	–	–
Robin	–	1	–	–		2	–	–	1	–	2	–		–	–	–	–	–	–	–	3
Blackcap	–	–	–	1		1	–	–	–	–	–	–		–	–	–	–	–	–	–	–
Willow Warbler	–	1	–	–		–	–	–	–	–	–	–		–	–	–	–	–	–	–	–
Chiffchaff	–	–	–	2		1	–	–	–	–	–	–		–	–	–	–	–	–	–	–
Goldcrest	3	2	2	3		–	–	–	–	–	–	2		1	1	1	–	3	5	5	1
Pied Flycatcher	–	–	4	–		–	–	–	–	–	–	–		–	–	–	–	–	–	–	–
Meadow Pipit	*	*	10	*		*	20	5	*	*	–	*		*	*	*	5	20	10	10	10
Pied Wagtail	5	–	–	1		1	1	1	–	–	1	1		3	–	–	–	–	–	–	6
Starling	1M	1M	60	750		50	20	15	70	50	200	–		50	–	100	MS	100s	100s	100s	–
Greenfinch	6	12	100	50		50	20	–	10	25	25	*		5	5	10	10	50	50	50	6
Goldfinch	–	8	14	12		20	10	–	–	–	35	30		–	2	5	–	10	5	2	2
Linnet	100	50	20	*		20	50	10	–	–	20	*		20	20	50	200	500	200	200	200
Chaffinch	2	20	50	2		–	1	–	–	–	10	–		–	–	–	5	–	8	10	10
Reed Bunting	20	20	10	20		–	3	–	–	–	–	–		5	10	2	–	–	–	5	12

OBSERVATORY NOT MANNED

LINCOLN SEWAGE FARM, CANWICK.

The Lincoln Sewage Farm lies on the south bank of the R. Witham and in the eastern entrance of the Lincoln Gap. It is of the type with pools of open water that is now becoming old-fashioned and provides an attraction for waders and other marshland birds. Several waders more normally associated with the coast have been recorded and it is hoped that regular watching in future years will help to throw light on a much neglected subject, the inland passage of birds across Lincolnshire.

Table of Waders observed at Lincoln Sewage Farm.

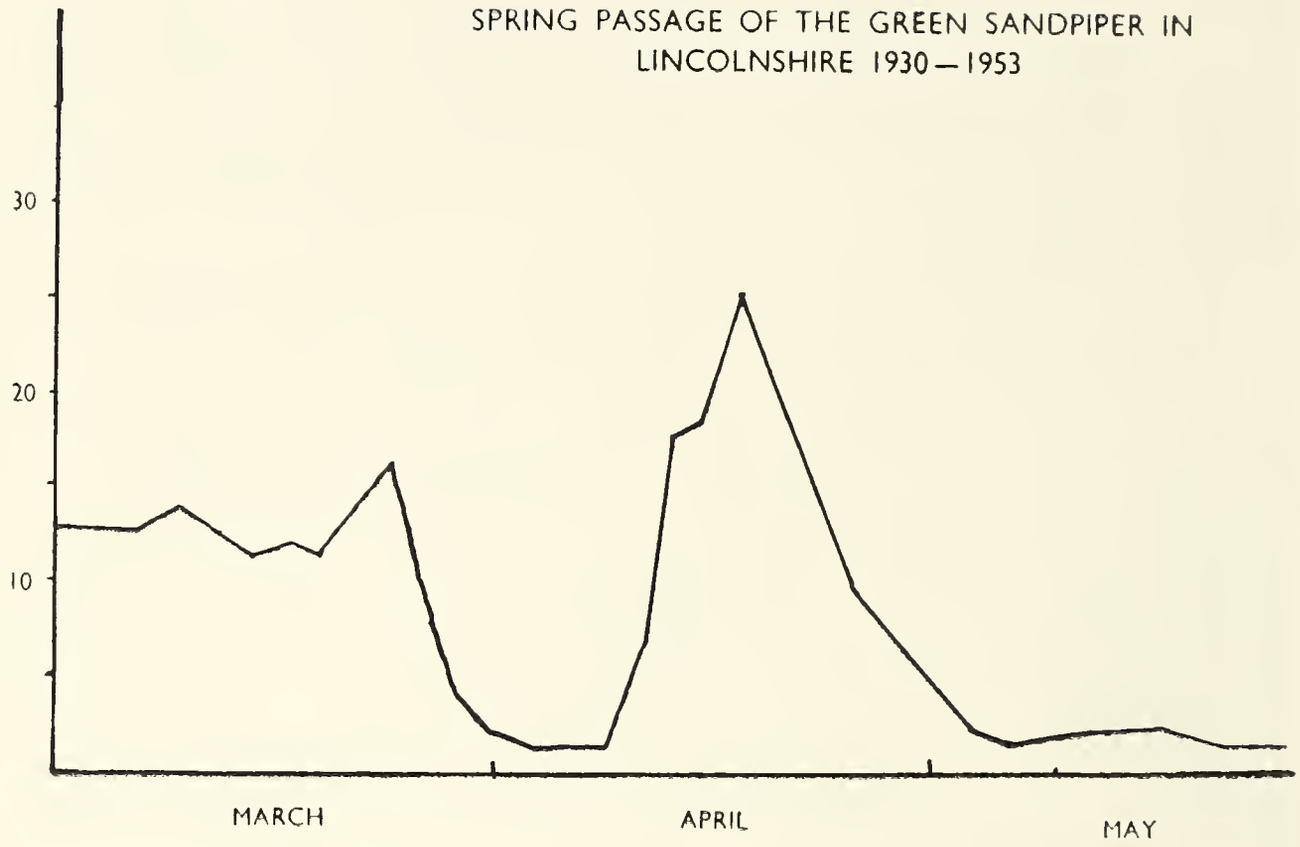
	AUGUST											
	5	**9**	**10**	**13**	**15**	**17**	**19**	**20**	**24**	**27**	**29**	**31**
Lapwing	7	4	3	2	6	6	2	6	6	100	150	75
Ringed Plover	–	–	–	–	–	–	–	–	–	–	–	–
Common Snipe	15	7	3	3	19	25	17	12	12	14	15	30
Jack Snipe	–	–	–	–	–	–	–	–	–	–	–	–
Curlew	–	13	–	–	–	–	–	–	–	–	–	–
Bar-Tailed Godwit	–	–	–	–	–	–	–	–	–	–	–	–
Green Sandpiper	12	5	9	3	4	3	1	4	3	3	4	8
Wood Sandpiper	–	–	–	1	–	–	1	1	–	–	–	–
Common Sandpiper	1	–	2	2	2	2	3	9	5	3	3	3
Redshank	–	2	1	2	1	–	1	–	–	1	–	–
Spotted Redshank	–	–	–	–	–	–	–	–	–	–	–	–
Greenshank	1	1	1	3	1	1	1	1	–	–	–	–
Dunlin	–	–	–	–	–	–	–	–	–	–	–	–
Sanderling	–	–	–	–	–	–	–	–	–	–	–	–
Ruff	–	–	–	–	–	–	–	–	–	–	–	2
Reeve	–	–	–	–	–	–	–	–	–	–	–	–

	SEPTEMBER													
	1	**2**	**4**	**7**	**9**	**10**	**12**	**14**	**16**	**17**	**18**	**21**	**24**	**30**
Lapwing	53	35	100	39	33	37	26	130	200	70	150	17	60	25
Ringed Plover	–	–	2	2	–	–	–	–	–	–	–	–	–	–
Common Snipe	43	35	79	17	22	19	56	42	47	33	45	43	42	35
Jack Snipe	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Curlew	–	–	1	–	–	–	–	–	–	–	2	–	–	–
Bar-Tailed Godwit	–	–	–	–	–	–	3	–	–	–	–	–	–	–
Green Sandpiper	5	–	2	2	1	1	1	1	2	2	2	2	2	4
Wood Sandpiper	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Common Sandpiper	3	3	3	3	1	1	3	2	1	–	1	–	–	–
Redshank	1	–	–	–	1	–	–	–	–	–	–	–	–	–
Spotted Redshank	–	–	–	2	3	–	–	–	–	–	–	–	–	–
Greenshank	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dunlin	–	–	–	–	–	–	–	–	–	–	–	2	–	–
Sanderling	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ruff	2	2	2	2	5	5	3	2	1	–	–	–	–	–
Reeve	–	1	1	1	2	3	2	2	1	–	–	–	–	–

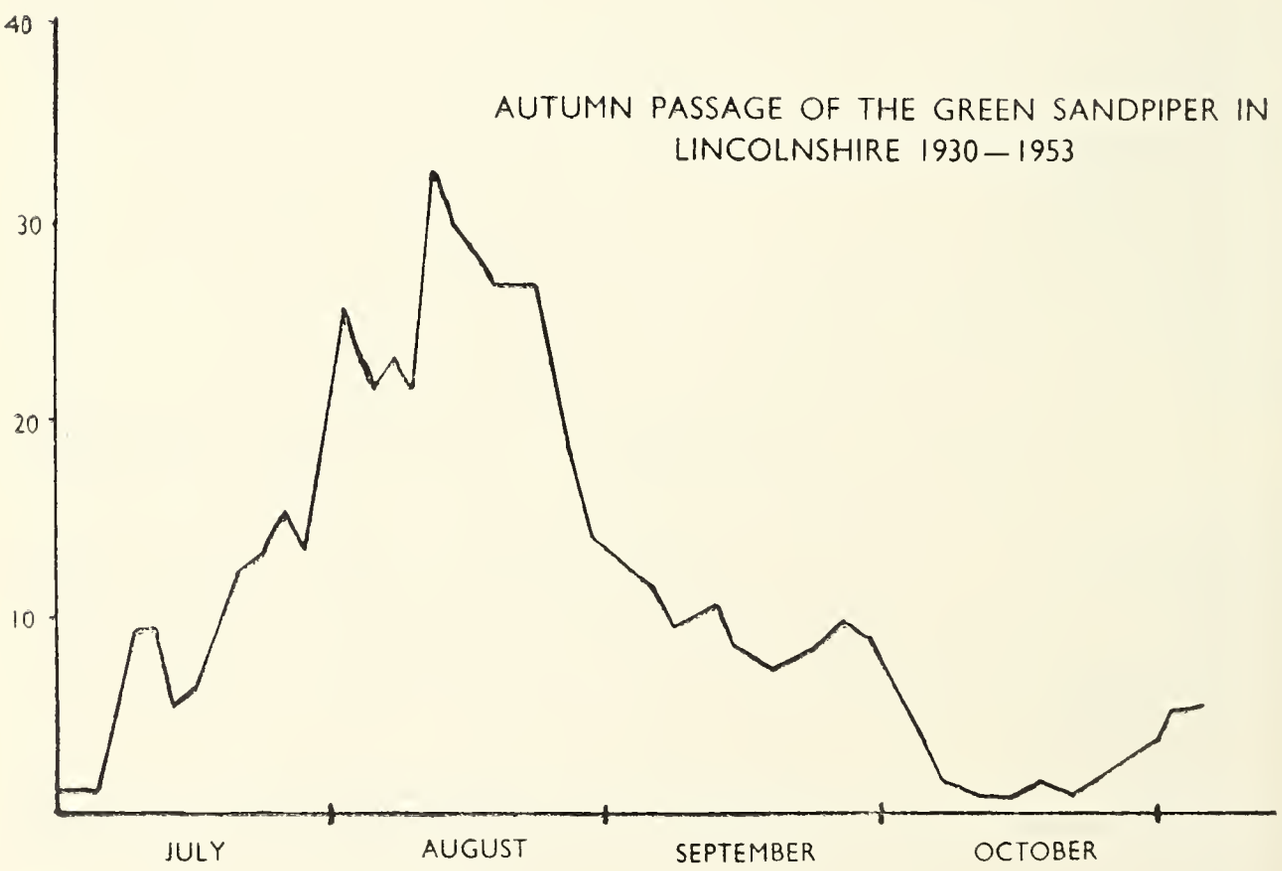
	OCTOBER				NOVEMBER	DECEMBER	
	3	**5**	**11**	**23**	**20**	**1**	**5**
Lapwing	70	125	200	50	–	–	–
Ringed Plover	–	–	–	–	–	–	–
Common Snipe	37	47	35	31	250	250	500
Jack Snipe	–	–	–	–	1	–	–
Curlew	–	–	–	–	–	–	–
Bar-tailed Godwit	–	–	–	–	–	–	–
Green Sandpiper	3	2	1	1	1	2	2
Wood Sandpiper	–	–	–	–	–	–	–
Common Sandpiper	–	–	–	–	–	–	–
Redshank	–	–	–	–	–	–	–
Spotted Redshank	–	–	–	–	–	–	–
Greenshank	–	–	–	–	–	–	–
Dunlin	–	–	–	–	–	–	–
Sanderling	–	–	–	–	1	–	–
Ruff	–	–	–	–	–	–	–
Reeve	–	–	–	–	–	–	–

E. I. Abell, C. T. Beverley, A. D. Townsend.

SPRING PASSAGE OF THE GREEN SANDPIPER IN LINCOLNSHIRE 1930—1953



AUTUMN PASSAGE OF THE GREEN SANDPIPER IN LINCOLNSHIRE 1930—1953



THE GREEN SANDPIPER IN LINCOLNSHIRE.

contributed by A. D. TOWNSEND

Status. Many more Green Sandpipers (*Tringa ochropus*) have been recorded in Lincolnshire since 1945 than were recorded in the earlier years of the century. There has, however, also been a great increase in the number of bird-watchers and for this reason it is impossible to judge whether or not the status of the species has changed. In Cambridgeshire, where comparable watches have been maintained over twenty years, there is evidence of a steady and considerable increase (I.C.T. Nisbet *in litt.*). In particular, ' wintering ' seems to be of fairly recent origin. It seems probable, therefore, that there may have been similar changes of status in Lincolnshire.

Seasonal fluctuations. These are shown in the accompanying graphs which have been compiled from all the available published records.

Winter. The first record of wintering in Lincolnshire was published in 1930. Since then it has been recorded several times. These records were of single birds but in 1951-52 six spent the winter near Horncastle.

Spring. Spring passage is on a much smaller scale than autumn passage, only single birds usually being seen. The increase towards the end of March which was noted also in Cambridgeshire may be due to birds which have wintered in southern England moving northwards, the late April peak being of true passage migrants that wintered south of Britain.

Summer. Green Sandpipers have been recorded in every month in the year. There have been unsubstantiated accounts of its breeding in the county but none of them are satisfactory.

Autumn. The pattern shown in the graph—of a main peak in mid-August with a lesser peak at the end of July and another at the end of September—agrees closely with that of the Cambridgeshire records.

The July peak may be of non-breeding birds and unsuccessful breeders which have migrated earlier. The August peak may be of young birds, and the September one of late breeders and those which will winter in the British Isles. Insufficient is known, however, of the ages of birds seen at different times to make this more than speculation.

Behaviour of wintering birds. A study of calls and behaviour has been made over three winters. Comparison has been made with the observations of G. C. S. Ingram and H. Morrey Salmon: ' 1932, some observations upon the notes and behaviour of the Green Sandpiper when flushed,' *British Birds*, Vol. 26, pp. 41-47.

	Lincs.	I & S
Towering with call	4	4
Rising with call	14	4
Silent flight over water	2	12

In Lincolnshire the observations were made on a small river and a steep-sided canal. Ingram and Salmon's observations were made on a reservoir. The Lincolnshire birds were out of sight of one another when feeding whereas Ingram and Salmon's birds were presumably in one another's view, and this difference in need for a warning call may explain the different results obtained. It was also noticed in 1954-55 at Lincoln Sewage Farm that a single bird rose silently, but when two birds were present they called when flushed.

The call most often recorded was kler-wit with variations. Sometimes, especially when the bird was in flight, the call was a soft too-li. Several times the calls pe-pe-pe and tit-tit-tit have been heard, generally as the bird settled after being flushed. The call or song klu-dule-to-ludle has only been heard when a bird was flying of its own volition (*i.e.*, not flushed) low over the water. Autumn passage birds are very noisy, especially when in parties, and the calls are very varied.

Display was recorded during the third week in March, 1954. It took the form of an aerial pursuit flight carried out at high speed and varying heights and accompanied by a high-pitched pe-pe-pe. A slow, gliding flight was also observed, the wings being held stiffly downwards.

Swimming and completely submerging the head were both recorded. Neither of these is described in *The Handbook of British Birds.*

LATE NESTING.

The following have been recorded as nesting unusually late in 1954. This may have been due to bad weather and consequent nesting failure in the normal breeding season.

Partridge. Four-day old chicks, Lincoln South Common, Sept. 7th (Geo. P.).

Woodpigeon. Nest c/2, Brocklesby, Oct. 8th (R.M.). Nest, two young, Limber, Oct. 12th (R.M.).

Blackbird. Two-day old nestlings, Lincoln South Common, Sept. 7th (Geo. P.).

Goldcrest. Nest with young, Limber, Aug. 4th (R.M.).

Linnet. Nest with young, Limber, Aug. 4th (R.M.).

Yellowhammer. Three out of c/4 hatched last week Aug. but died at eight days old, Lincoln (C.T.B.).

Nest with half-grown nestlings, Legsby near Market Rasen, Sept. 28th (R.K.C.).

RINGING RECOVERIES.

Little Grebe. Ringed as adult, Colchester, Essex, 2-7-53; recovered in Dec. 1953, S. Killingholme, Grimsby (130 m. N.N.W.) (B.T.O.).

Shag. Ringed (stormbound), Skegness, Feb. 1954; recovered a few days later at Sutton-on-Sea (G.P.).

Heron. Ringed as young, Buscot, Berks., 22-4-53; recovered 18-8-53 near Edenham (93 m. N.E.) (B.T.O.).

Mallard. Female ringed, Slimbridge, Glos., 4-12-50; shot 17-11-54, S. Hykeham (B.T.O.).

Male ringed, Slimbridge, 18-9-52; shot, 22-11-52, Burton (W.T.).

Female ringed, Borough Fen, Northants, end Aug. 1954; shot, mid-Sept. 1954, Tattershall (J.G.P.).

Teal. Male ringed, Borough Fen, Northants, 19-9-51; shot, 27-10-52, Kirkby Underwood (W.T.).

Female ringed, Borough Fen, 9-11-51; shot, 6-9-52, Sutton Bridge (W.T.).

Pink-footed Goose. Details of 36 more Pinkfoot recoveries relating to Lincolnshire are given in the annual report of the Wildfowl Trust for 1952-53.

(1) Nine ringed in Central Iceland in the last week of July 1951 were shot in Lincolnshire between 25-10-52 and 14-1-53. (31 ringed at the same time were recovered in Lincolnshire in the winter of 1951-52).

(2) Three ringed in S.E. Scotland in Oct. 1950 were shot in Lincolnshire in Oct. 1952 (2) and Jan. 1953 (1).

Seven ringed in S.E. Scotland in the autumns of 1951 and 1952 were recovered in Lincolnshire, one in the following winter, the rest later in the same winter.

Two ringed in Dumfries in Oct. 1951 and 1952 were recovered in Lincolnshire later in the same winters.

Two ringed in Fife in Oct. 1951 and 1952 were recovered in Lincolnshire, one in the same and one in the following winter.

Two ringed in Yorkshire in Oct. 1952 were recovered in Lincolnshire. One was recaptured three days later and one was shot two months later.

(3) Seven ringed in Lincolnshire in December 1950 were recovered as follows:—

Two in Lincolnshire in Nov. 1952 and Feb. 1953.

Two in Lancashire in Jan. and Mar. 1953.

One at Stirling in Dec. 1952.

One at Aberdeen in Mar. 1953.

One that was caught in Lincolnshire and later released at the New Grounds, Slimbridge, Gloucestershire was recovered on May 9th, 1951, at Sermikikfjord, East Greenland (*ca.* 66° N: 38° W.). This is the second recovery in Greenland of a Lincolnshire-ringed Pinkfoot.

Three ringed in Lincolnshire in Oct. 1952 were recovered as follows:—

One was shot nearby two days later.

One was found dead in Yorkshire in early Dec. 1952.

One was shot in Lancashire later in Dec. 1952.

In addition, one ringed on 27-10-52 in Lincolnshire was recaptured in Central Iceland on 11-7-53 and finally shot at Wainfleet, again in Lincolnshire, on 2-11-53.

(4) One that left the New Grounds on 31-8-48, having spent six months there, was shot in Lincolnshire in Oct. 1952, four years later.

Kestrel. Ringed as young, Goxhill, by H. van den Bos, 15-6-53; recovered 17-9-53, Lydbury North, Shropshire (140 m. S.W.) (B.T.O.).

Ringed as young, Goxhill, 17-5-51; recovered in Nov. 1953 near Blyth, Nottinghamshire (40 m. S.W.; $2\frac{1}{2}$ years later) (B.T.O.).

Ringed as young, Goxhill, 26-6-53; recovered 7-12-54, Fakenham, Norfolk (H. van den B.).

Black-headed Gull. Ringed as adult by the Wildfowl Trust, Deeping Lake, 17-3-53; recovered 1-8-53, Mogenstrup (Zealand), Denmark (55° 11′ N.: 11° 50′ E.) (B.T.O.).

Sandwich Tern. Two ringed as young, Farne Is., 4-7-53: recovered 4- and 5-9-53, Grimsby (155 m. S.W.) (B.T.O.).

Swallow. Ringed as young, Cumdivock, Cumberland, 10-6-52; recovered, 25-5-53, Grimsby (145 m. S.E.; following spring) (B.T.O.).

Ringed as young by the late F. R. Bean, Alexandra Rd., Skegness, 18-8-53; recovered 16-5-54, 29 Sea View, Skegness (following summer) (G.P.).

Ringed as nestling, Horbling near Sleaford, 22-6-52; recovered 28-5-54 near Billingborough, about a mile away (two years later) (A.H.S.).

Magpie. Ringed as juvenile, Gibraltar Point, 3-8-52; recovered 12-9-54, Friskney, Boston (2 years 1 month later) (G.P.).

Great Tit. Ringed as juvenile, Gibraltar Point, 23-7-49; recaptured 10-1-54 where ringed (4½ years later) (G.P.).

Blue Tit. Ringed, Gibraltar Point, 9-10-50; found dead 3-5-54, Addlethorpe near Skegness (3½ years later) (G.P.).

Wren. Ringed, Gibraltar Point, 21-10-53 and recaptured there twice in Oct. and Nov. 1953; recaptured 10-10-54 where ringed (one year later). (G.P.).

Song Thrush. Ringed as adult, Gibraltar Point, 3-10-52; recovered, 8-2-54, Braga, Portugal (1½ years later) (G.P.). This is the first recovery of a Lincolnshire-ringed Song Thrush from Portugal; others have been recovered in Spain and S.W. France.

Ringed as adult, Gibraltar Point, 10-9-51; recovered (only head and legs found), July 1954, Alsen, Denmark (50° N: 9° 55′ E.) (three years later) (G.P.). This is the first recovery of a Continental Song Thrush in its area of origin, though owing to the uncertain date of death one cannot be certain that it died on its actual breeding area.

Ringed as juvenile, Gibraltar Point, 30-9-51; recovered, *ca.* 16-2-55 Ulceby near Grimsby (3½ years later) (G.P.).

Ringed as juvenile, Gibraltar Point, 19-7-53; recovered, *ca.* 19-2-55 Sinfin Moor, Barrow-on-Trent, Derby (73 miles W.S.W., 1½ years later) (G.P.).

Redwing. Ringed as 1st winter, Gibraltar Point, 1-11-52; found dying, 13-2-54, Kyrenia, Cyprus (following winter) (G.P.). This is the furthest east a British-ringed Redwing has been recovered. *C/f.* previous recovery of a Redwing in S. Italy in January.

Blackbird. Ringed as adult by H. van den Bos, Goxhill, 12-11-52; recovered 1-4-53, Skegby, Nottinghamshire (52 m. S.W.) (B.T.O.).

Ringed as 1st winter male, Gibraltar Point, 12-3-50; recovered, 4-4-54, Sutton-on-Sea (4 years later) (G.P.).

Ringed as adult male, Gibraltar Point, 8-5-54; recovered 1-8-54, Kings Lynn, Norfolk (G.P.).

Ringed as adult female, Gibraltar Point, 1-11-52; recovered 2-12-54, Lincoln (two years later) (G.P.).

Ringed as 1st winter male, Gibraltar Point, 9-10-53; found dead 16-2-54, Wainfleet (G.P.).

Ringed as adult female, Gibraltar Point, 15-10-53; recovered 13-11-54, Bereide (Nordfjord), Norway (61° 48′ N.: 6° 10′ E.) (G.P.)

Ringed as adult female, Gibraltar Point, 29-10-54; recovered, *ca* 20-1-55, Rinxent, Pas-de-Calais, N. France (50° 49′ N: 1° 47′ E.) (G.P.). This is the first recovery abroad in winter of a Blackbird ringed on passage at Gibraltar Point. Recovery was following the first wintry spell of 1955 and emigration may have been due to a weather-movement.

Ringed as female, Spurn Point, Yorks., 6-11-54; recovered 3-3-55, Ludborough, Louth (C.L.O.). 6-11-54 was the day of an immense immigration of Blackbirds and other species (*c/f* Gibraltar Point, Migration and Weather). Two other Blackbirds of the 282 ringed at Spurn on that day have been recovered—one at Rochdale, Lancs., on Nov. 17th, the other back in Western Germany at Oldenburg on Nov. 10th, only four days after it was ringed.

Robin. Ringed, Gibraltar Point, 15-10-53; recovered 24-1-54, Little Hallingbury, near Bishops Stortford, Herts. (G.P.).

Whitethroat. Ringed as juvenile, Gibraltar Point, 14-8-52; recaptured 1- and 26-8-54 where ringed (two years later) (G.P.).

Ringed as adult, Gibraltar Point, 12-8-53; recaptured four times between 16-5-54 and 15-8-54 where ringed (in the following summer) (G.P.).

Pied Flycatcher. Ringed, Rowley Burn, Hexham, Northumberland, 1-7-51: recovered, *ca.* 29-4-53, Lincoln (130 m. S.S.E.; presumably on return passage two summers later) (B.T.O.).

Dunnock. Ringed as adult, Gibraltar Point, 8-4-53; recaptured, 2-8-54, where ringed (16 months later) (G.P.).

Ringed as adult, Gibraltar Point, 30-8-53; recaptured, 21-8-54, where ringed (one year later) (G.P.).

Pied Wagtail. Ringed as nestling, Hydes Farm, Deeping High Bank near Crowland, 22-6-51; found dead, 14-2-54, half a mile away at Crowland Bridge (2 years 8 months later) (A.H.S.).

Starling. Ringed as adult in the Darwin Reserve in the area of Rybinsk, U.S.S.R. (58° 30′ N.: 37° 30′ E.), 8-5-53; recovered 2-1-54, Toynton-All-Saints, near Spilsby (per B.T.O.). This is the first Lincolnshire recovery of a Russian-ringed Starling.

Ringed as young 11 miles N.W. of Hässleholm, Sweden (56° 8′ N.; 13° 46′ E.), 4-6-52; recovered early Nov. 1954, North Elkington near Louth (C.L.O.).

Ringed as nestling, Horbling near Sleaford, 16-5-54; shot 9-7-54, Terwolde (Gelderland), Holland (A.H.S.). The recovery of a British-bred Starling abroad only 54 days after it was still in the nest is most remarkable and has not been paralleled elsewhere.

Two ringed, Alford, 3- and 8-2-53; recovered 15-3-54 and 15-10-54 where ringed (A.E.S.).

Two ringed as juveniles, Gibraltar Point, 16-6-52; one recovered 30-3-54, Gilvingwells, Worksop, Nottinghamshire, the other 18-10-54, Toynton-St.-Peter, Spilsby (G.P.). Five other juvenile Starlings ringed at the same time have already been reported as recovered—four in Lincolnshire and one in Flintshire.

Ringed Lincoln, 6-7-54; recovered 23-11-54, Hemswell (A.D.T.).

Greenfinch. Ringed as adult, Monks' House B.O., Seahouses, Northumberland, 14-12-51; recovered 26-6-53, near Lincoln (165 m. S.S.E.; 18 months later) (B.T.O.).

Lesser Redpoll. Ringed as 1st winter male, Gibraltar Point, 10-10-53; captured and released, 11-11-53, St. Vith, near Liège, Belgium (32 days later) (G.P.).

GENERAL BIRD REPORT.

The following have contributed observations:—

E. I. Abell
A. D. Bates
R. Baumber
C. T. Beverley
D. A. Campbell
C. Colebrook
R. K. Cornwallis
T. H. Court
P. B. Danby
A. W. S. Dean
E. G. Flaxman
C. W. Flintham
D. Gill
B. C. Hall
J. F. D. Hargreaves
E. J. Keall
R. May
F. Norris
C. L. Ottaway
R. Parker
W. M. Peet
G. R. Porter
J. G. Porter
Geo. Posnett
B. A. Pye
M. G. M. Ruddock
D. Rushby
A. E. Smith
A. H. Smith
A. D. Townsend
Wildfowl Trust
H. van den Bos
S. van den Bos
A. E. Vine
T. H. Wallis
L. Watkinson

The following contributed to the records of the Gibraltar Point Bird Observatory:—

S. B. Scargill
A. D. Bates
G. L. A. Posnett
H. A. Hems
P. E. Gipps
W. M. Peet
P. Wilson
N. G. Hughes
D. Lee
F. M. Boston
A. Bak
J. Bak
C. T. Beverley
A. D. Townsend
Mrs. S. McCallum
Mrs. S. Cowdy
F. R. Allison
A. G. Hurrell
R. A. O. Hickling
J. Hickling
E. L. Arnold
F. Norris
C. L. Ottaway
H. G. Cherry
The late F. R. Bean
D. H. Hill
B. Wilkinson
R. H. Higgins
J. S. Chambers
K. T. Green
R. K. Cornwallis
A. E. Smith

Black-throated Diver. *Colymbus arcticus.*

One (dead), Humberston, Feb. 13th (P.B.D., D.G., D.R.). Two, Fosdyke, Feb. 28th (C.B.C.).

Red-throated Diver. *Colymbus stellatus.*

Singles, Welland estuary, Jan. 31st, Nov. 7th and Dec. 5th (C.B.C.).

Great Crested Grebe. *Podiceps cristatus.*

The following breeding pairs were recorded:—

Deeping Gravel Pit—3-4 pairs (C.B.C.).

Lambert Hill Pond, Brocklesby—one pair; first record from this locality (R.M.).

Fillingham Lake—one pair, two broods (R.M., Geo. P.).

Saxilby Ballast Pit—one pair (Geo. P.).

Burton Gravel Pit—two pairs (C.T.B., E.I.A.).

L.N.E.R. Pits, Lincoln—two pairs (E.I.A.).

Tattershall Gravel Pits—two pairs (R.M.). First record from this locality.

The large number of 22 was recorded at Denton Reservoir, May 9th (W.M.P.).

Slavonian Grebe. *Podiceps auritus.*

One, Earle's Pit, Barton-on-Humber, Feb. 28th and Mar. 28th; one, Killingholme, Mar. 21st (S. van den B.).

Black-necked Grebe. *Podiceps caspicus.*

Two, Holbeach, Apr. 11th (C.B.C.). This is apparently the first record of this species since 1882. As is usual, there are several records from the Norfolk coast of the Wash where it seems to occur regularly.

[*podiceps* sp.

Two small black-and-white grebes, L.N.E.R. Pits, Lincoln, Feb. 26th. Unfortunately it is not certain whether they were Black-necked or Slavonian (E.I.A., T.H.W.).

One, Gibraltar Point, Aug. 25th, again not specifically identified (G.P.).].

Cormorant. *Phalacrocorax carbo.*

Inland records: one, Spalding, Jan. 16th (C.B.C.); one immature, Lambert Hill Pond, Brocklesby, Sept. 11th (R.M.). G.P.

Heron. *Ardea cinerea.*

A complete census of breeding Herons was carried out throughout Britain in 1954. The figures for Lincolnshire, totalling 315 pairs, have been published in detail in *The Birds of Lincolnshire*, so are not repeated here. G.P.

Bittern. *Botaurus stellaris.*

One ' booming,' Barton-on-Humber, Apr. 25th (C.L.O.). Only one heard there in spring 1954 (S. van den B.). One, Grainsby, end Jan. (B.A.P.). One Marshchapel, Jan. 5th (D.A.C.). Two, Deeping Mere, in cold weather in early Feb. (C.B.C.). One spent from Dec. 4th to the end of the year at Eagle Hall, Swinderby (A.D.B.).

Spoonbill. *Platalea leucorodia.*

Four, Tetney Haven, June 6th and 7th and two there June 8th, 9th, 10th, 19th and 20th (L.W., R.M.). Two, North Cotes, June 15th (C.L.O.) may have been the same birds, as L.W. made five visits to the Tetney Haven area between 9th and 19th without seeing any. However, he feels that the two birds of 19th and 20th were different from those seen earlier. Of the four, all had bushy crests, one had a yellow tip to the bill and ochre at the base of the neck (adult) and two had black wing-tips (immature; probably second summer since they had crests).

Mallard. *Anas platyrhynchos.*

Nest, c/10, Brocklesby on a stout branch of an Austrian pine well away from main bole of tree and 45 ft. 7 ins. from ground (R.M.).

Greatest winter numbers: 500, Laughton, Jan.; 350, Grimsthorpe, Jan. (per R.K.C.); 300, L.N.E.R. Pits, Lincoln, Jan. 11th (E.I.A.).

One mated with Gadwall, see under that species.

C.B.C. (see duck tables), G.P.

Teal. *Anas crecca.*

Unusually numerous in Read's Island area in Jan. (D.A.C.). Maxima: 800, Welland estuary south side, Nov. 7th (C.B.C.); 150 Burton Pits, Lincoln, Dec. 19th (E.J.K.). G.P., C.B.C. (see also, duck tables).

Garganey. *Anas querquedula.*

One or two pairs bred Cowbit Washes (C.B.C.). One drake, Tetney Haven, Apr. 29th (L.W.).

Gadwall. *Anas strepera.*

One, Holbeach, paired to a Mallard, Apr. 18th (C.B.C.). Two, Earle's Pit, Barton-on-Humber, Nov. 9th, one remaining there to the end of the year (S. van den B.).

Wigeon. *Anas penelope.*

Inland record: five, L.N.E.R. Pits, Lincoln, Mar. 7th (E.I.A.). Maxima: 8,000, Read's Island, Feb. 7th (J.F.D.H., D.A.C.); 2,400, Gibraltar Point, Jan. 6th (G.P.); 15,000, Welland estuary north side, Jan. 31st; 5,000, Welland estuary south side, Feb. 14th; 9,000, Welland estuary south side and 6,000 north side, Nov. 7th (C.B.C.). See also C.B.C. duck tables.

Pintail. *Anas acuta.*

One pair, Burton Pits, Jan. 27th (A.D.T.). Five, Earle's Pit, Barton-on-Humber, Feb. 21st (S. van den B.). Two drakes and a duck, L.N.E.R. Pits, Lincoln, Feb. 24th (E.I.A.). At Tetney Haven birds were present from Mar. 5th (two) to Apr. 28th (four pairs); maximum was nine on Apr. 19th (in 1953 maximum was 33 on Mar. 1st) (L.W.). Nine, Tetney Haven, Mar. 21st (R.M.). Five, Welland estuary, Feb. 14th and 91 there, Nov. 7th (C.B.C.). Eight, Cowbit Washes, Feb. 14th; 117, Feb. 20th; 17, Feb. 27th (C.B.C.). Four, Gibraltar Point, Oct. 1st (G.P.).

Shoveler. *Spatula clypeata.*

Breeding population in Welland washes still further reduced, perhaps to one-third of 1952 numbers (C.B.C.). Bred unsuccessfully Read's Island (R.M.).

Two, Newsham Lake, Brocklesby, Jan. 23rd (R.M.). Five, L.N.E.R. Pits, Lincoln, Feb. 26th (E.I.A.). Three, Cowbit Washes, Feb. 14th and ten there Feb. 27th (C.B.C.). One, Grantham, S.F., Apr. 3rd and a pair there May 26th (W.M.P.). Usual few at Tetney Haven in Apr. and a party there of seven drakes, June 8th, and of eight in eclipse plumage, July 7th (L.W.). Singles, Gibraltar Point, Aug. 16th, 22nd, 23rd and three there, Aug. 31st (G.P.).

Scaup. *Aythya marila.*

Unusually large numbers, Killingholme, Jan. to Mar., max: 150 on Feb. 14th. Up to 65, Earle's Pit, Barton-on-Humber (S. van den

B., R.M.). One (dead) Humberston, Feb. 20th (P.B.D.). One, L.N.E.R. Pits, Lincoln, Feb. 15th (E.I.A.). Nine, North Cotes, Mar. 14th (R.M.). Up to 16, Welland washes, Jan. to Apr. (C.B.C.).

One, drake, Barton-on-Humber, July 17th (S. van den B.). 34, Welland channel, Aug. 8th (C.B.C.).

Two, Barton-on-Humber, Nov. 18th—28th and Dec. 12th (S. van den B.). Up to four, Earle's Pit, Barton-on-Humber, Nov. (F.N.).

Tufted Duck. *Aythya fuligula.*

Pair bred Langtoft Gravel Pit (C.B.C.).

One pair, Burton Pits, May 2nd (A.D.T., C.T.B.) and five, Deeping Gravel Pit, July 19th (C.B.C.), but no proof of breeding.

Maxima in winter: 30, Killingholme, Feb. 21st (R.M.); 30, L.N.E.R. Pits Lincoln, Feb. 24th and 26th (E.I.A.); 67, Earle's Pit, Barton-on-Humber, Nov. 28th (F.N.).

Pochard. *Aythya ferina.*

Three pairs bred, L.N.E.R. Pits, Lincoln (E.I.A.). A pair at Tattershall Gravel Pits, May 9th (R.M.).

Greatest winter numbers: 40, L.N.E.R. Pits, Lincoln, Feb. 24th (E.I.A.).

Goldeneye. *Bucephala clangula.*

One, Skellingthorpe Pits, Jan. 9th (B.C.H.). 20, Holbeach, Jan. 20th (C.B.C.). Five, Killingholme, Feb. 14th (R.M.). One, Burton Pits, Feb. 23rd and four, L.N.E.R. Pits, Lincoln, Feb. 24th (E.I.A.). 12, Earle's Pit, Barton-on-Humber, Mar. 7th (R.M.).

Four, Gibraltar Point, Oct. 24th and one there Nov. 2nd (G.P.). 20, Holbeach, Dec. 12th (C.B.C.). One, Burton Pits, Dec. 19th (E.J.K.).

Long-tailed Duck. *Clangula hyemalis.*

One, Holbeach, Nov. 7th (C.B.C.).

Velvet Scoter. *Melanitta fusca.*

One, Gibraltar Point, Aug. 20th (G.P.). One, North Cotes, Oct. 17th and Nov. 14th (R.M.).

Scoter. *Melanitta nigra.*

Inland record: one, Langtoft G.P., July 30th (A.E.V.).

Eider. *Somateria mollissima.*

Three, Tetney Haven, July 3rd—Aug. 3rd (L.W.). Three, North Cotes, Aug. 8th (R.M., S. van den B.) may have been the same birds. Five, Welland estuary, Nov. 7th; one there, Nov. 21st and Dec. 19th (C.B.C.).

Red-breasted Merganser. *Mergus serrator.*

One, Killingholme, Feb. 14th (R.M., S. van den B.). One, Barton-on-Humber, Feb. 28th (S. van den B.). Ten, Witham mouth, Nov. 9th (C.B.C.).

Goosander. *Mergus merganser.*

One, Barton-on-Humber, Feb. 28th (S. van den B.). One, Earle's Pit, Barton-on-Humber, Mar. 7th. (R.M.).

Four, Holbeach, Oct. 17th and one there Nov. 21st and Dec. 5th (C.B.C.). Three, Burton Pits, Dec. 29th (Geo. P.).

Smew. *Mergus albellus.*

Two, Killingholme, Feb. 7th and four there Feb. 14th. One, Grimsby docks, Feb. 14th. One, Killingholme, Feb. 21st and three there, Mar. 7th. One, Earle's Pit, Barton-on-Humber, Feb. 21st and 28th (S. van den B., R.M.). Four, Cowbit Washes, Feb. 27th (C.B.C.).

Sheld Duck. *Tadorna tadorna.*

Inland breeding: two or three pairs, Wisbech S.F. (C.B.C.). Inland record: one, Grantham S.F., May 2nd (W.M.P.).

Greatest winter numbers: 500-600, Tetney Haven, Jan. 29th (L.W.); 400, Welland estuary, Feb. 14th; 1,000, Nov. 9th; 1,400 Nov. 21st (C.B.C.). G.P. See also C.B.C. duck tables.

Grey Lag Goose. *Anser anser.*

One, Holbeach, Jan. 17th (C.B.C.).

Eight, Gibraltar Point, Sept. 27th and nine there on the following day (G.P.).

White-fronted Goose. *Anser albifrons.*

Two, Saltfleet, Nov. 21st (per R.K.C.).

Pink-footed Goose. *Anser arvensis brachyrhynchus.*

Present in numbers in Fenland until late Jan. (last records Feb. 14th). Peak of early spring gathering (2-3,000) in south-west Wash area around Mar. 7th. 500 still there Mar. 21st, 75 Mar. 27th and stragglers as late as May (C.B.C.). One, Grantham S.F., May 8th (W.M.P.).

Autumn. (1) *North Lincolnshire.* First recorded, Limber, Sept. 17th (R.M.) and Cleethorpes, Sept. 19th (B.A.P.). By late Oct. numbers had built up to 2,750, increasing to 3,000 in early Nov. after which they fell off (F.N.).

(2) *North-west Wash.* First records were unusually early. A grey goose was seen on Aug. 24th, five were seen on Sept. 11th and numbers quickly rose to 130 on Sept. 18th, to peaks of 1,500 on Sept. 27th and Oct. 2nd, and 4-5,000 frequently from Oct. 10th to Nov. 5th with 6,000 on Nov. 2nd-3rd. Only a few remained in early Dec. (G.P.).

(3) *South-west Wash.* Small numbers present Sept. 27th-28th onwards through Oct., with at least 2,000 on Nov. 7th and a peak of nearly 5,000 on Nov. 21st, decreasing rapidly in Dec. Flocks of several hundreds reported from other coastal areas in this period (C.B.C.).

(4) *Fenland.* Birds reported inland as early as mid-Nov. and substantial numbers present throughout Dec. (C.B.C.).

Brent Goose. *Branta bernicla.*

Large numbers present in Freiston area in Jan. and Feb. but no good estimates available. Occasional records of small numbers in Welland estuary to Apr. 11th and from Nov. 7th onwards (C.B.C.). Nine, Cleethorpes, Jan. 30th; one there, Feb. 21st. One, Tetney Haven, Mar. 5th (L.W.).

Of 38 near Fosdyke on Feb. 28th a few were referred to the light-breasted race *B. b. hrota* (C.B.C.).

Barnacle Goose. *Branta leucopsis.*

One, Read's Island, Feb. 7th (D.A.C.).

Canada Goose. *Branta canadensis.*

55, Grimsthorpe, Jan. 3rd; 14 there on Mar. 6th (A.W.S.D.). One, Cowbit Washes, Feb. 20th; two there Mar. 6th (C.B.C.). Two, Tetney Haven, Mar. 11th—Apr. 19th (*c/f* 1953. The four reported there May 9th, 1953, stayed until May 14th, after which two departed, the other two staying till May 25th) (L.W.). Up to 270, Grimsthorpe, in autumn (A.W.S.D.).

Whooper Swan. *Cygnus cygnus.*

Two, Gibraltar Point, Jan. 9th (G.P.) One adult and two young, Newsham Lake, Brocklesby, Jan. 24th, 30th and Feb. 21st (R.M.). Seven, Goxhill, Apr. 4th (R.P.). One, Gibraltar Point, Apr. 20th (G.P.). Three, Goxhill, Oct. 10th (R.P.). 13, Cowbit Washes, Dec. 6th (C.B.C.).

Bewick's Swan. *Cygnus bewickii.*

One, Witham mouth, flying inland, Nov. 21st (C.B.C.).

Buzzard. *Buteo buteo.*

A young bird arrived at Spalding in July and remained until the end of the year. It became remarkably tame and fed from the hand (E.G.F.). Two were seen to fly N.E. into Lincolnshire from Belvoir, Sept. 26th (W.M.P.).

Marsh Harrier. *Circus aeruginosus.*

Single birds, Holbeach, Apr. 18th, June 19th, Aug. 11th and 25th (C.B.C.). Single birds, Gibraltar Point, May 1st, June 7th and Aug. 11th—the last was a melanistic bird (G.P.).

Hen Harrier. *Circus cyaneus.*

A female or immature bird spent the whole winter until Mar. on Read's Island, where it was seen by R.M. on Jan. 23rd (D.A.C.). One (not certainly identified), North Cotes, Oct. 24th (R.M.). A female at Goxhill from Nov. 11th to the end of the year (S. van den B., R.P.). One, Holbeach, Dec. 4th (C.B.C.).

C.B.C. note that in the Wash area this species has occurred less frequently since 1950 despite greatly increased observation, while the number of records of Marsh Harriers has increased correspondingly.

Peregrine. *Falco peregrinus.*

One, Gibraltar Point, Apr. 19th (G.P). One, North Cotes, Oct. 17th (R.M.).

Merlin. *Falco columbarius.*

One, Gibraltar Point, Jan. 9th (G.P.). One, North Cotes, Oct. 10th and 17th (S. van den B., R.M.). One, Gibraltar Point, Nov. 1st (G.P.). C.B.C.

Kestrel. *Falco tinnunculus.*

Passage of 8—10, Gibraltar Point, Aug. 9th-10th (G.P.).

Quail. *Coturnix coturnix.*

One calling, North Cotes, June 7th (R.M.).

Corncrake. *Crex crex.*

One heard and seen, late Apr., Boothby Graffoe (M.G.M.R.).

Oystercatcher. *Haematopus ostralegus.*

Breeding records: three pairs, Holbeach (C.B.C.); one pair, Gibraltar Point (G.P.); one pair, North Cotes (R.M.); one pair, Goxhill, in sugar-beet field (S. van den B.).

Biggest flock recorded: *c.* 3,000, Gibraltar Point, mid-Aug. to third week Oct. (G.P.) C.B.C.

Lapwing. *Vanellus vanellus.*

A recently ploughed area of grassland at Limber attracted four pairs of Lapwings to breed where none had bred previously. They were unsuccessful owing to the field being reseeded to grass (R.M.).

Cleethorpes—Northerly movement (160) across Humber Mar. 11th and (*c.* 60) Mar. 19th. North-westerly movements: 149, Mar. 21st; small parties, June 20th; large numbers Oct. 8th and *c.* 10,000 in flocks of less than 100, Nov. 4th (L.W.). Immigrations at Gibraltar Point Nov. 3rd (*c.* 500), Nov. 4th (*c.* 1,500) and Nov. 6th (100's) (G.P.). A stream flew south over Limber for *c.* 20 minutes, Nov. 23rd (R.M.). L.S.F., *G.P.*, C.B.C.

Ringed Plover. *Charadrius hiaticula.*

c. 30 pairs bred Gibraltar Point and Skegness Nature Reserves (G.P.). Two pairs bred North Cotes (R.M.). L.S.F.

Little Ringed Plover. *Charadrius dubius.*

Three nests c/4, c/4, c/2, May 30th, at the same gravel pits where this species has nested since 1950. Birds noted there on May 9th and 23rd. A visit on July 3rd showed that one nest had failed, one had doubtful success and only one young bird was actually found (R.M., S. van den B., A.D.T.). One, Cleethorpes, Apr. 29th (L.W.).

Grey Plover. *Charadrius squatarola.*

Noted inland at Cowbit Washes (C.B.C.). Largest flock: *c.* 1,000, Welland estuary, Sept. 1st (C.B.C.). G.P.

Golden Plover. *Charadrius apricarius.*

Largest numbers in the Fens noted in a restricted area between the Welland and the Nene. Large spring passage, Cowbit Washes, with peaks of 2,700, Mar. 21st; 2,000, Apr. 4th; 1,530, Apr. 16th; 1,300, Apr. 24th. Many of these were of the Northern race. In autumn numbers built up to 2,000 on Dec. 6th (C.B.C.). G.P.

Turnstone. *Arenaria interpres.*

Maximum concentrations: 300, Freiston, Aug. 31st; 500, Holbeach Fosdyke, Sept. 1st (C.B.C.). G.P.

Woodcock. *Scolopax rusticola.*

Immigrants at Gibraltar Point: four, Nov. 2nd and 4th (G.P.).

Curlew. *Numenius arquata.*

Nested, L.N.T. Reserve, Scotton Common.

13 on grassland bordering Newsham Lake, Brocklesby, Jan. 30th (R.M.). Inland records in winter are unusual.

Largest concentration: 5,000, Welland estuary, Sept. 1st (C.B.C.). G.P., L.S.F.

Whimbrel. *Numenius phaeopus.*

Unusually large spring migration, Goxhill (S. van den B.).

Late records, Frampton, Oct. 23rd and Nov. 21st (C.B.C.). G.P.

Black-tailed Godwit. *Limosa limosa.*

One, Nene mouth, Feb. 14th (C.B.C.). One, North Cotes, June 20th (C.L.O.). One, Tetney Haven, June 20th and 24th and July 30th (R.M.). Welland estuary: 115, Aug. 8th; 80, Aug. 22nd; 50, Sept. 1st (C.B.C.). One, North Cotes, Aug. 15th (R.M.). Late record: one, Welland estuary, Dec. 5th (C.B.C.).

Bar-tailed Godwit. *Limosa lapponica.*

Largest concentrations: *c.* 500, Tetney Haven, Mar. 5th (L.W.); 500, Frampton, Sept. 1st (C.B.C.); 400, Gibraltar Point, Sept. 29th (G.P.). L.S.F.

Green Sandpiper. *Tringa ochropus.*

Winter and Spring: R. Bain near Horncastle—one, Feb. 14th; two, Mar. 7th; three, Mar. 20th; pair, Mar. 21st performing display flight (A.D.T.). Lincoln S.F.—one, Apr. 9th and 10th (A.D.T., C.T.B.); Mr. Codling, Superintendent, states that one spent the whole winter there.

Summer: Grantham S.F.—two, June 26th; three, July 10th; eight, July 15th; one, July 21st; nine, July 30th (W.M.P.). Two, Tattershall, July 3rd (R.M.). One, Louth S.F., July 15th (C.L.O.), One, Barton Common Gravel Pit, July 30th (A.E.V.).

Autumn: Gibraltar Point—Four, Aug. 5th; one, Aug. 10th, 12th, 17th, 18th, 24th; three, Aug. 25th; two, Aug. 27th; one, Aug. 28th and Sept. 3rd-5th (G.P.). Several, North Cotes, Aug. 31st (R.M.). Four, Grantham S.F., Sept. 11th (W.M.P.). Two, Saltfleetby, Sept. 11th (Geo. P.). Two, R. Bain near Horncastle, Oct. 31st (A.D.T.). L.S.F., C.B.C. (see wader tables).

Wood Sandpiper. *Tringa glareola.*

One, Gibraltar Point, Aug. 4th and 10th (G.P.). One, Cleethorpes. Aug. 12th and 19th (L.W.). 15—20, Wisbech S.F., Aug. 25th (C.B.C.). One, Grantham, S.F., Sept. 11th-12th (W.M.P.). L.S.F., see also C.B.C. wader tables.

Common Sandpiper. *Tringa hypoleucos.*

One spent the summer on the R. Slee (B.C.H.). Two uttering breeding call, Tattershall, May 9th (R.M.). One, Grantham S.F., July 15th (W.M.P.). L.S.F., G.P.

Redshank. *Tringa totanus.*

One pair bred, Grantham S.F. (W.M.P.). Three pairs bred, R. Till area (A.D.T.). G.P., L.S.F.

Three on R. Witham in the middle of Grantham during bad weather, Feb. 6th (W.M.P.).

Spotted Redshank. *Tringa erythropus.*

One, Cleethorpes, Aug. 28th (L.W.). One, Goxhill, Sept. 11th (R.P.). Gibraltar Point—three, Aug. 11th; two, Aug. 12th; one, Aug. 14th; four, Aug. 21st; two, Aug. 22nd; four, Aug. 23rd-24th; one, Aug. 26th-30th; one, Sept. 3rd, 5th and 6th (G.P.). L.S.F., see also C.B.C. wader tables.

Winter record: one, Witham mouth, Dec. 19th (C.B.C.).

Greenshank. *Tringa nebularia.*

Late records: one, Tetney Haven, Nov. 2nd and 3rd and two on 4th (L.W.).

Inland record: two, Grantham S.F., Sept. 11th (W.M.P.).

C.B.C., G.P., L.S.F.

Marsh Sandpiper. *Tringa stagnatilis.*

One, Holbeach St. Marks, Aug. 8th (C.B.C.). This is the first record for Lincolnshire. For full details see *British Birds*, vol. xlviii, pp. 138-139.

Knot. *Calidris canutus.*

Peak numbers at Gibraltar Point: 5,000, Aug. 14th and 28th-29th; 10,000-40,000, Sept. 12th-14th (G.P.).

Purple Sandpiper. *Calidris maritima.*

Six, Holbeach, Nov. 7th. One, Witham mouth, Nov. 7th (C.B.C.).

Little Stint. *Calidris minuta.*

Numerous in autumn, 1954.

Single birds, Cleethorpes, Aug. 20th, Sept. 11th, Oct. 20th (L.W.). One, Pyewipe, near Grimsby, and two, North Cotes, Sept. 12th (S. van den B., R.M.). Gibraltar Point—three, Aug. 21st; two, Aug. 24th; 14, Aug. 25th; one, Aug. 29th; 4, Sept. 18th (G.P.). Largest numbers in Wash area: 15, Holbeach, Aug. 22nd; ten, Fosdyke, Aug. 25th and 29th; 50, Gedney Drove End, Aug. 28th (C.B.C., see also wader tables).

Temminck's Stint. *Calidris temminckii.*

One, Wisbech S.F., Aug. 25th (C.B.C.). Unusual numbers were present in the Wash area at this time. This is only the second Lincolnshire record since 1900.

Dunlin. *Calidris alpina.*

Inland records: One, R. Bain near Horncastle, Jan. 1st (A.D.T.). One, Grantham S.F., July 30th (W.M.P.). L.S.F., G.P.

Curlew Sandpiper. *Calidris testacea.*

Unusually numerous in autumn 1954.

Cleethorpes—One, Aug. 26th; five, Aug. 27th; eight, Sept. 11th; one, Sept. 13th; seven, Sept. 15th; one, Sept. 23rd, 30th, Oct. 1st, 4th and 20th (L.W.); one, Oct. 2nd (E.I.A.). Goxhill—12, Aug. 26th; one, Aug. 27th-28th, and Sept. 26th (S. van den B., R.P.). 20, Pyewipe near Grimsby, Sept. 12th (S. van den B., R.M.). Six, North Cotes, Sept. 19th (R.M.). Saltfleet Haven—34, Aug. 25th, numbers declining gradually till last seen Sept. 16th (C.L.O.). Gibraltar Point—five, Aug. 21st; two, Aug. 24th; 16, Aug. 25th; ten, Aug. 27th; five, Aug. 29th (G.P.). Maxima in Wash area: 23, Wisbech S.F., Aug. 25th and 20 there Sept. 15th and 19th; 40, Fosdyke, Aug. 29th; 50, Gedney Drove End, Aug. 28th (C.B.C. and see also wader tables).

Late record: one, Holbeach, Nov. 21st (C.B.C.).

Sanderling. *Crocethia alba.*

Large numbers (*c.* 2,000), Gibraltar Point, third week August (G.P.). L.S.F.

Ruff. *Philomachus pugnax.*

At least as numerous in autumn as in the exceptional year of 1953.

45, Wisbech S.F., Apr. 18th (C.B.C.). Goxhill—three, Aug. 8th; one, Aug. 28th; three, Sept. 3rd; four, Sept. 26th (S. van den B., R.P.). Cleethorpes—one, Aug. 11th; two, Aug. 15th and Sept. 5th; three, Aug. 12th (L.W.). Tetney Haven—one, July 21st and 24th (L.W.). Gibraltar Point—15, Aug. 16th; one, Aug. 19th; three, Aug. 21st; six, Aug. 22nd; five, Aug. 23rd-24th; one, Aug. 26th (G.P.). Grantham S.F.—nine, Sept. 11th; two, Oct. 10th (W.M.P.). Maxima in Wash area—28, Cowbit Washes, Sept. 15th; 35, Wisbech S.F., Aug. 23rd and Sept. 1st and 50 there Sept. 15th and 19th (C.B.C., see also wader tables). L.S.F.

Grey Phalarope. *Phalaropus fulicarius.*

Two, Witham mouth, Oct. 23rd (C.B.C.). This is the first record since 1949 and the first from the Wash area, all the previous records since 1914 having been from the north-east coast.

Arctic Skua. *Stercorarius parasiticus.*

Autumn passage at Gibraltar Point: up to three almost daily in Aug. and first half Sept. (G.P.).

Gull spp.

A survey of the winter population of gulls in 1952-53 by R. A. O. Hickling is published in *Bird Study*, vol. 1, pp. 129-148.

Lesser Black-backed Gull. *Larus fuscus.*

Winter record: One, Denton Reservoir, Nov. 21st (W.M.P.). G.P., C.B.C.

Little Gull. *Larus minutus.*

One, Gibraltar Point, May 7th (imm.) and Aug. 22nd (G.P.). One almost certainly of this species, Cleethorpes, Sept. 12th (L.W.). One, Saltfleet Haven, Sept. 15th (C.L.O.). One, Spalding, Oct. 17th (C.B.C.).

Black-headed Gull. *Larus ridibundus.*

Five pairs bred Grantham S.F. (W.M.P.). Bred Friskney area (R.M.) and Frampton saltings (C.B.C.). G.P.

Kittiwake. *Rissa tridactyla.*

Holbeach—242 counted flying inland in 70 minutes, Dec. 5th, as a S.W. gale of several days' duration was moderating rapidly (C.B.C.) 24, North Cotes, Dec. 5th (S. van den B.). Unusually scarce at Gibraltar Point, only four (in Aug.) being noted (G.P.).

Black Tern. *Chlidonias niger.*

There was a major passage of Black Terns through Britain on May 9th-10th, a full account of which by R. F. Dickens has appeared in *British Birds*, Vol. 48, 148-169. The following occurred in Lincolnshire:

One, Burton Pits, Lincoln, May 2nd (A.D.T., C.T.B.). One, Somercotes, May 3rd. One, Goxhill, May 9th (R.P.). Eight, Tattershall Pits, May 9th; seven of these passed over the area to the south without pausing (R.M.). One, Denton Reservoir, May 9th (W.M.P.). Eight, Saxilby Ballast Pit, May 10th (C.T.B.). One, Cleethorpes, May 10th (L.W.).

Saltfleet Haven—29, Sept. 15th; 9, Sept. 16th, and one half a mile inland; two, Sept. 22nd (C.L.O.). Gibraltar Point—two, Aug. 10th, 12th, 14th; one, Aug. 15th; two, Aug. 18th; five, Aug. 19th; three, Aug. 24th; two, Aug. 25th; one, Aug. 30th; four, Sept. 2nd; five,

Sept. 9th; one, Aug. 13th (G.P.). *c.* 100, Welland estuary, Aug. 31st-Sept. 1st (C.B.C.). Two, Lincoln S.F., Sept. 10th (A.D.T.). Wisbech S.F.—see C.B.C. report.

Common/Arctic Tern. *Sterna hirundo* and *macrura.*

One pair Common Terns probably bred, Cowbit Washes (C.B.C.). Small colony, Frampton (C.B.C.). Bred, Friskney area, among Black-headed gulls (R.M.). Five pairs bred Tattershall area (R.M.). One pair Arctic Terns bred Gibraltar Point (G.P.). One, Denton Reservoir, Apr. 25th and five there, May 9th (W.M.P.). One over Lambert Hill Pond, May 11th (R.M.). One attacking Kestrel, Burton Pits, Lincoln, July 5th (A.D.T.). Eight, Barton Common Gravel Pit, July 30th. Three, Langtoft Gravel Pit, July 30th (C.B.C.). One Arctic (exhausted, died), Market Rasen, Aug. 17th (T.H.C.).

Maximum numbers: 4,000, Gibraltar Point, mid-August (G.P.); 500, Witham mouth, Aug. 31st-Sept. 1st (C.B.C.).

Little Tern. *Sterna albifrons.*

15-20 pairs bred Gibraltar Point with only moderate success (G.P.). Bred again North Cotes but nests washed out by high tides (R.M.).

Sandwich Tern. *Sterna sandvicensis.*

Up to 1,000, Gibraltar Point, mid-Aug. (G.P.). C.B.C.

Guillemot. *Uria aalge.*

Nine badly oiled birds on the sands at Mablethorpe, Apr. 24th-27th (E.I.A.).

Woodpigeon. *Columba palumbus.*

Influxes from the east noted at Gibraltar Point on Oct. 28th (300) and 30th (300) (G.P.). A flock 100 yards broad and three-quarters of a mile long passed over Limber, Dec. 28th (R.M.).

Turtle Dove. *Streptopelia turtur.*

A very late bird, Freiston, Oct. 23rd (C.B.C.). G.P.

[**Collared Dove.** *Streptopelia decaocto.*

The Collared Dove arrived at Greetwell for its third summer on Apr. 9th (R.M.]

Cuckoo. *Cuculus canorus.*

More regular and in larger numbers than in the last two years at Gibraltar Point throughout Aug. (G.P.). At Limber the species

apparently had a poor breeding season, two being found dead in the nest and only one being known to have fledged successfully; cold nights and scarcity of insects were thought to be the cause (R.M.).

Long-eared Owl. *Asio otus.*

Two young, Nettleton Bottom, July 4th. The same two were probably those seen at Rothwell Top three days later (R.M.).

One, Cleethorpes, Feb. 14th (L.W.). One was seen in the same place on Mar. 1st, 1953, and both may have been migrants. One, Donna Nook, Aug. 5th (R.M.). One, Gibraltar Point, Aug. 10th-11th (G.P.).

Short-eared Owl. *Asio flammeus.*

Two pairs probably bred Holbeach (C.B.C.). One, Billinghay, Apr. to Sept., but no proof of breeding (B.C.H.).

One, Read's Island, Jan. 3rd (R.M.) and 9th (D.A.C.). Gibraltar Point—1-2 on four days in Apr.; one on four days in Aug., six days in Sept.; 1-2 on four days in first half Oct. (G.P.). One, North Cotes, Aug. 31st and Nov. 14th (R.M.). One, Saltfleet Haven, Dec. 28th (C.L.O.). C.B.C.

Hoopoe. *Upupa epops.*

One, Kirkby Green, May 1st (C.W.F.). One, Cleethorpes, Oct. 28th-Nov. 8th (L.W., R.B.).

Lesser Spotted Woodpecker. *Dendrocopos minor.*

One, North Willingham, Apr. 17th (C.T.B.).

Wryneck. *Jynx torquilla.*

One, Gibraltar Point, Aug. 26th and 31st (G.P.).

Woodlark. *Lullula arborea.*

Nest c/4, Manton, Apr. 4th. Nest c/4, Greetwell, June 19th. (R.M.).

Skylark. *Alauda arvensis.*

Very little autumn passage at Gibraltar Point in autumn. Only considerable movement 150 to S.W., Sept. 23rd (*G.P.*).

Shore Lark. *Eremophila alpestris.*

Several, Skegness, Jan. 31st (B.C.H.). Two adults, Gibraltar Point, Mar. 1st, 3rd and 4th (G.P.).

Swallow. *Hirundo rustica.*

Nest, c/7, Old Somerby, June 29th (W.M.P.). *The Handbook of British Birds* states that clutches of 7 are "rarely" found. *G.P.*, C.B.C. see special discussion of Wash movements.

Carrion Crow. *Corvus corone.*

Only migratory movement noted at Gibraltar Point, an immigration of *c.* 50, Oct. 29th (G.P.).

Hooded Crow. *Corvus cornix.*

Nest, c/5, Crowland Washes, Apr. 3rd from which three apparently typical young were reared. Only one adult was seen at the nest and hybridisation is not impossible. Four, Cowbit Washes, Aug. 1st (? the Crowland birds) (C.B.C.). There is only one previous breeding record from Lincolnshire—near Horncastle in 1900.

Inland spring record: One, Grantham S.F. (unusually far inland), Apr. 3rd (W.M.P.).

Unusually scarce on the coast in autumn 1954. Only two, Cleethorpes—on Nov. 9th and 14th (L.W.). First arrived Gibraltar Point, Nov. 4th; winter population considerably less than in past years. (G.P.).

Jay. *Garrulus glandarius.*

One, Gibraltar Point, June 11th—it is rarely recorded on the coast and this was the first ringed at the Observatory (G.P.).

Nuthatch. *Sitta europaea.*

One in a spinney bordering the Weelsby Road, Grimsby, on Dec. 17th (B.A.P.). Records outside the restricted breeding-area in south-west Lincolnshire are exceedingly unusual and the observer notes that this is only the third that he has recorded in north-east Lincolnshire during the last 50 years.

Treecreeper. *Certhia familiaris.*

1-2 at Gibraltar Point on five days between Sept. 26th and Oct. 14th (G.P.).

Dipper. *Cinclus cinclus.*

One wintered on the River Lud within the boundaries of Louth in 1951-52, 1952-53 and 1953-54 (C.L.O.).

Fieldfare. *Turdus pilaris.*

Late spring records: 12, Casthorpe near Grantham, Apr. 25th (W.M.P.); one, Humberston, May 22nd (L.W.).

Immigration from north-east noted at North Cotes, Oct. 17th (R.M.). Immigrations at Gibraltar Point, Oct. 27th-28th and Nov. 1st (G.P.). Large arrival in Wash area, Nov. 4th-7th (C.B.C.). 650 flying west over Grantham, Nov. 7th (W.M.P.).

Song Thrush. *Turdus ericetorum.*

Immigration from north-east noted at North Cotes, Oct. 17th (R.M.). No big movements at Gibraltar Point (G.P.).

Redwing. *Turdus musicus.*

First autumn arrivals, 15-20, Brocklesby, Oct. 4th (R.M.). Immigrations from north east noted at North Cotes, Oct. 17th (R.M.). Immigrations at Gibraltar Point, Oct. 9th-10th, Oct. 27th (1,000's), 28th (200), 29th and 30th (100), Nov. 5th-6th (G.P.). Large numbers passed over Lincoln during the night Nov. 2nd-3rd (A.D.T.). C.B.C.

In the cold spell of late Jan. and early Feb. Redwings at Limber began to die of starvation. One was noted moving about on a wheat stack that was being threshed and hunting for baby mice in the pink, hairless stage. It pulped them against the ground before eating them. It did this for several days, moving with the threshing-drum to a fresh stack some 200 yards away. After threshing had been interrupted for a day and a half by bad weather it did not reappear. (R.M.).

Ring Ousel. *Turdus torquatus.*

One, Goxhill, May 9th (R.P.). One, Gibraltar Point, Sept. 26th and Oct. 3rd (G.P.).

Blackbird. *Turdus merula.*

Big influx, Cleethorpes, first week Nov., birds moving south-west (L.W.). Immigrations at Gibraltar Point Oct. 9th-10th, Nov. 2nd, Nov. 4th-5th, and on a very large scale (*c.* 2,000 in the nature reserve) on Nov. 6th (*G.P.*). C.B.C.

Wheatear. *Œnanthe œnanthe.*

In the Cleethorpes area the first was not noted until Apr. 8th and only four others were noted during that month. Peak passage was from May 4th to 7th when 72 birds passed through, 44 of them on 7th. Usually the peak passage is in Apr. In the autumn more than usual were counted, but there was no real peak. Last recorded Nov. 6th (L.W.). *G.P.*

Stonechat. *Saxicola torquata.*

One, Goxhill, Jan. 18th (S. van den B.). One, Cowbit Washes, June 20th, a pair there July 10th and a juvenile Aug. 1st suggest breeding nearby (C.B.C.). One, Gibraltar Point, Sept. 30th and Nov. 1st; a pair there Nov. 2nd-3rd (G.P.).

Whinchat. *Saxicola rubetra.*

A pair on canal bank near Fulstow Bridge, June 16th, but no definite evidence of breeding (C.L.O.). *G.P.*

Redstart. *Phoenicurus phoenicurus.*

Nest, c/6, Scawby, May 23rd (S. van den B.). Male, singing, Cottagers Dale Wood, May 11th (R.M.). *G.P.*

Black Redstart. *Phoenicurus ochruros.*

Three (one male and two females), Humberston, Nov. 14th (L.W., R.B.).

Reed Warbler. *Acrocephalus scirpaceus.*

Nest, c/4, Priest's Pond, Limber, June 21st (R.M.). In the same place as they nested for the first time in 1953.

One on passage, Gibraltar Point, Aug. 27th (G.P.).

Sedge Warbler. *Acrocephalus schoenobaenus.*

About eight pairs breeding on Louth Canal between Fulstow Bridge and Thorsley Bridge (C.L.O.). *G.P.*

Barred Warbler. *Sylvia nisoria.*

One, Gibraltar Point, Aug. 20th-22nd (G.P.).

Garden Warbler. *Sylvia borin.*

Two, Cowbit Washes, May 8th—the only ones the observer has seen in S. Lincolnshire (C.B.C.). *G.P.*

[*phylloscopus* sp.

On Aug. 22nd, the day after the biggest Continental drift of the autumn had developed, a *phylloscopus* warbler with a single pale wing-bar was seen at Donna Nook. Other points noted were: size as Willow Warbler, pale underparts, pale eyestripe, legs dark but browner in bright sunlight. Excellent views were obtained (R.M., S. van den B., C.C.). Greenish Warbler (*Ph. trochiloides*) seems the most likely, but in view of the difficulty of field identification and of the fact that there are other species not on the British List that conform to the description given, the record is enclosed in square brackets].

Chiffchaff. *Phylloscopus collybita.*

Nest, c/3, Limber, May 10th (R.M.). At least one heard frequently during May in Maltby Wood near Louth (C.L.O.).

A *phylloscopus* not certainly identified, but probably a Chiffchaff, Cleethorpes, Feb. 17th (L.W.). *G.P.*

Wood Warbler. *Phylloscopus sibilatrix.*

Two, Lincoln S.F., Sept. 4th (A.D.T.). Single birds at Gibraltar Point, Aug. 8th, 12th, 23rd, 24th, 31st and Sept. 7th (G.P.).

Pied Flycatcher. *Muscicapa hypoleuca.*

Only one spring record: one, Cleethorpes, May 16th (L.W.).

The immigration of this species at Gibraltar Point on Aug. 21st (*G.P*) was also noted elsewhere, viz: one, Legsby, near Market Rasen, Aug. 21st (R.K.C.); numerous, Donna Nook, Aug. 22nd (R.M., S. van den B.); one, Cleethorpes, Aug. 24th (it is usually more numerous here) (L.W.) *c/f* also C.B.C. records on Norfolk side of Wash.

Tree Pipit. *Anthus trivialis.*

On June 5th R.M. heard a clamour for food from a nest of young Tree Pipits, behaviour which he has not noted previously. It was 15 minutes before the parents brought food. The weather was cold and it is probable that insect food was unusually scarce.

Two singing in Maltby Wood, three miles south-east of Louth, May 11th (C.L.O.). It is a very scarce breeder in eastern Lincolnshire.

Only movement at Gibraltar Point, *c.* 50, Aug. 24th (G.P.).

Rock Pipit. *Anthus spinoletta.*

Inland record: one, Cowbit Washes, Mar. 6th (C.B.C.).

Unusually large number of *c.* 150, Witham mouth area, Nov. 21st (C.B.C.). G.P.

Grey Wagtail. *Motacilla cinerea.*

One, Cowbit Washes, Sept. 26th, is the first recent record for the Fens (C.B.C.).

Autumn passage at Gibraltar Point: two, Sept. 7th and singles three times in last week Sept. (G.P.).

Winter records: One, Tattershall, Jan. 24th (B.C.H.); one, Grantham (in middle of town on R. Witham during bad weather), Feb. 6th (W.M.P.); one, Ticklepennies Lock (Louth Canal), Dec. 5th; 1-2 usually present Lincoln S.F. (C.T.B., A.D.T.).

Yellow Wagtail. *Motacilla flava.*

Bred Lincoln S.F. (A.D.T.). Breeding population on Louth Canal, six pairs between Alvingham and Tetney Haven (C.L.O.).

Maximum on autumn passage at Lincoln S.F., 40 (A.D.T.) *G.P.*

Late records: 55, Cowbit Washes, Oct. 9th; three, Fosdyke, Oct. 24th (C.B.C.).

Male of the race *M. f. flava* (Blue-headed Wagtail), Cowbit Washes, May 9th (C.B.C.). This is only the third record for the county and the first from S. Lincolnshire.

Waxwing. *Bombycilla garrulus.*

One, Goxhill, Jan. 3rd (R.P.). One, Hendale Lodge, Limber, Jan. 4th (R.M.).

Great Grey Shrike. *Lanius excubitor.*

One, Ropsley, near Grantham, Apr. 10th (per W.M.P.).

Red-backed Shrike. *Lanius collurio.*

Two, Donna Nook, Aug. 29th (R.M.., S. van den B.).

Starling. *Sturnus vulgaris.*

Big, north-west movement, Cleethorpes, Nov. 2nd, 3rd and 4th (L.W.). *c/f G.P.*

Hawfinch. *Coccothraustes coccothraustes.*

Bred successfully, Scrivelsby (A.D.T.).

One, Gibraltar Point, Aug. 1st-4th (G.P.).

Siskin. *Carduelis spinus.*

20, Gibraltar Point, Sept. 26th and one there, Oct. 30th (G.P.).

Twite. *Carduelis flavirostris.*

Large flocks (*c.* 1,300) Witham mouth to Freiston shore, Oct. 23rd (C.B.C.). Last spring record: 18, Holbeach, Apr. 11th (C.B.C.).

Redpoll. *Carduelis flammea.*

Six, Ropsley near Grantham, Apr. 11th (W.M.P.). One, Gibraltar Point, Sept. 28th-29th and eight there Oct. 1st (G.P.). 12, Holbeach, Nov. 7th. One, Freiston, Dec. 19th (C.B.C.).

It appears to have ceased to breed in the Scotton Common area in recent years (R.M.).

Crossbill. *Loxia curvirostra.*

One, Limber, Apr. 18th and 20th (R.M.).

Chaffinch. *Fringilla coelebs.*

Big movement (*c.* 2,000) to S.S.W. at Gibraltar Point, Mar. 21st (*G.P.*). A party came in from the sea, Tetney Haven, Mar. 21st (R.M.). This movement was also noted at Spurn Point.

Little autumn movement. Immigration (*c.* 200), Gibraltar Point, Nov. 6th (*G.P.*).

Brambling. *Fringilla montifringilla.*

Late spring records: one, North Scarle, Apr. 6th (A.D.T.); six, Scunthorpe, Apr. 18th (F.N.).

Gibraltar Point—First, Oct. 4th; up to 20 most days in last week Oct. and first week Nov. (G.P).

Little Bunting. *Emberiza pusilla.*

One, Cowbit Washes, Oct. 2nd (C.B.C.). The second record for Lincolnshire. Full details have been submitted and a report will appear in *British Birds.*

Reed Bunting. *Emberiza schoeniclus.*

The introduction of a small reed-bed in Priest's Pond, Limber (which has led to the breeding of Reed Warblers in 1953 and 1954) attracted a male Reed Bunting to sing daily from mid-April to May 7th, after which it disappeared. The species has not been recorded previously from here in many years' watching (R.M.). *G.P.*

Lapland Bunting. *Calcarius lapponicus.*

14, Cleethorpes, Jan. 23rd (P.B.D., D.G., D.R.). One, Cleethorpes, Jan. 23rd and Feb. 15th (L.W.). 20, North Cotes, Jan. 31st and two there, Feb. 28th (R.M.).

First year bird, Saltfleet Haven, Sept. 26th (C.L.O.). One, North Cotes, Nov. 14th (R.M.).

Tree Sparrow. *Passer montanus.*

A flock of 100-200 at Holdingham Mill near Evedon from early Apr. to May 18th (T.H.W., E.I.A.). It is most unusual for birds still to be in flocks so late in the spring. G.P.

BRITISH MUSEUM NATURAL HISTORY

LINCOLNSHIRE NATURALISTS' UNION

TRANSACTIONS, 1951-54

VOLUME THIRTEEN

Part 2 of this volume repeats the pagination of Part 1. Page references to Part 2 are therefore indicated by the addition of an asterisk, *i.e.*1*

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